Caithness Blythe II, LLC
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April 21, 2004

Mr. Bill Pfanner
Project Manager
California Energy Commission
MS-15
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Caithness Blythe II Responses to the Blythe Energy Phase II Preliminary Staff Assessment

Dear Mr Pfanner;

Per your request we have held off submitting the Caithness Blythe II (CB II) comments to the Blythe Energy Phase II (BEP II) Preliminary Staff Assessment. We believe our comments are now substantially complete and that you can begin your review. We will provide additional details regarding the status of some items as well as our comments on the Energy Commission Status Report dated March 23, 2004, via separate correspondence in the next several days. The attached table notes the status of the CB II responses to the PSA and Staff requests for additional information.

Enclosed are 25 copies of the CB II responses to the Blythe II Preliminary Staff Assessment, as you requested. The contents of the response binders are arranged in the same order as the Preliminary Staff Assessment. There is a tab for each section except for Power Plant Efficiency and Power Plant Reliability which, because of the brevity or our comments, have been consolidated into a single section/tab. Attachments to our comments for any section are preceded by a yellow sheet of paper identifying the attachment (not all sections have attachments). You will receive 25 complete sets of the comments section for Air Quality section and 25 additional attachments to the Soils and Water section addressing Staff's dry cooling economic analysis at a later date.

Please do not hesitate to call me if you have questions at (414) 475-2015.

Very truly yours,

R. Looper
FOR

Thomas Cameron
Project Manager
Caithness Blythe II

cc: R. Looper (Caithness Blythe II)

ATTACHMENT TO CB II PSA RESPONSE COVER LETTER

PSA Section	Status
Project Description	Complete
Air Quality	The Final Determination of Compliance is not complete.
Biological Resources	The USFWS letter confirming that the original Biological Opinion is applicable for BEP II is not complete.
Cultural Resources	Complete
Hazardous Materials	Complete
Land Use	The City of Blythe's override of the ALUC determination is not complete.
Noise and Vibration	Complete
Public Health	Complete
Socioeconomics	Complete
Soil and Water	The draft Waste Discharge Requirements are not complete. The CB II analysis of Staff's economic analysis of dry cooling is not complete.
Traffic and Transportation	The City of Blythe's override of the ALUC determination is not complete.
Transmission Line Safety and Nuisance	Complete
Visual Resources	Complete
Waste Management	Complete
Worker Safety and Fire Protection	The City of Blythe Fire Services Needs Assessment is not complete.
Facility Design	Complete
Geology, Mineral Resources, and Paleontology	Complete
Power Plant Efficiency	Complete
Power Plant Reliability	Complete
Transmission Systems Engineering	Complete
Alternatives	Complete
General Conditions	Complete

BLYTHE ENERGY PROJECT
Phase II
(02-AFC-01)

Responses
to
California Energy Commission

Preliminary Staff Assessment

Contents

COMMENTS

TO

AIR QUALITY SECTION

WILL BE

PROVIDED LATER

BIOLOGICAL RESOURCES

Applicant's Comments to BEP II Preliminary Staff Assessment Biological Resources		
Number	**Comment**	**Page**
1	The 66 acre BEP Expansion Site as approved by the CEC under Amendment 1B to the BEP license, allows for temporary soil stabilization measures such as the application of Enviro-Tac. At the completion of the soil disposal operation by Blythe Energy, Enviro-tac was applied to approximately 50 acres, which had been disturbed. At the request of the Blythe Energy, CEC provided an extension to the time period when re-vegetation of this acreage would be needed. Provided CB II received a license from the CEC in a timely manner, construction would commence on the project prior to any permanent re-vegetation activities taking place on the Site. Staff should acknowledge this point.	4.2.6
2	We disagree with Staff's analysis regarding the burrowing owl. Staff fails to recognize the entire 152 acre site was surveyed, fenced and mitigated for loss of habitat as part of the BEP licensing process. BEP II will be located entirely within this previously approved and mitigated site. No further mitigation is necessary. Additionally, Staff fails to acknowledge over 200,000 cubic yards of excess soils were moved, watered down and compacted to 90%. Enviro-tac soil stabilization has been applied and Blythe Energy will be performing period maintenance activities to minimize the growth of noxious weeds. Staff should note these Site conditions are not conducive to Burrowing Owl habitat and also that the presence of this species was not noted during the 2 year construction period at the Site. Additionally on December 4, 2003, the Fish and Game Commission rejected the petition to list the burrowing owl in California as threatened. Also staff should recognize the burrowing owl was not listed as an endangered species.	4.2-8
3	Staff has commented on the effectiveness of bird hazing systems and also noted CB II should consider an alternate method of handling the plants waste water by using a brine crystallizer technology. Staff has referenced a BLM study related to the effectiveness of bird hazing systems at Pacificorp's Junior Bridger Coal Plant. In this study, it was determined such a system reduced the bird mortality rate. **A couple of noteworthy points**: 1. It should be noted the BEP evaporation ponds are one of **many** standing and higher quality water	4.2-15

	sources available to birds in the Palo Verde Valley. This contrasts strongly with Staff's referenced (BLM 2002) 300-acre Pacificorp Jim Bridger Power Plant pond, which is situated in an arid landscape that attracts migratory birds and is the only body of water when other nearby sources have dried up or iced over (BLM 2002: Page 21). Deterring birds from the BEP II pond may not be necessary. 2. The study takes place in another environmental setting in Wyoming. Staff assumes bird population is consistent between the two areas. 3. Staff does not address the setting of the Palo Verde Valley which has over 100,000 acres under farming and irrigation, the proximity of the Colorado River, the irrigation canals and drains, and the likelihood that birds will be attracted more so this setting vs. the dry, desert environment of the upper mesa where BEP II is located. 4. Staff assumes birds will be equally attracted to an area having a 7 acre pond (BEP II) as they would be to a 300 acre pond. 5. The study indicates bird hazing is approximately 75% effective. Using the same assumptions as the 300 acre pond and applying it to BEP II's 7 acre pond results in a rate of approximately .33 bird mortalities per acre of pond or two bird mortalities per year. Application of hazing techniques would reduce the mortality rate to approximately .5 mortalities per year for the BEP II ponds. 6. Bird hazing as applied at the Junior Bridger facility involved sirens, alarms and pyrotechnics. Application of this technology as a bird detractor has the potential to cause significant noise impacts to the immediate area. 7. Implementation of brine crystallizer technology requires approximately one MW of auxiliary power, thereby impacting the plant's overall efficiency. Brine crystallizer technology will result in the generation of waste products requiring landfill on a daily basis. Handling of the sludge or brine cakes creates a myriad of other potential environmental issues. 8. A Brine Crystallizer will cost about 4 million to implement for a non redundant system. Because the equipment is prone to breakdown and maintenance problems, either costly redundancy will	

	be required or the ponds, as proposed will have to be constructed anyways to cover "outage" conditions so the plant will not be forced to shutdown until the brine crystallizer is operational.	
4	Staff has indicated 5 ppm ammonia slip in the text. BEP II is proposing a 10 ppm ammonia slip.	4.2-13
5	Staff has indicated in the PSA that the interconnection to the transmission line grid is still being determined. BEP II will interconnect at the Buck Boulevard Substation. Please see CB II's comments on the Transmission System Engineering section of the PSA for a complete description.	4.2-17
6	CBII has concluded the review process with the City of Blythe Project Review Committee and is providing a copy of the final conditions as Biological Resources Attachment #1. CBII notes there are no "off-site" improvements/ requirements imposed by the City of Blythe.	

CONDITIONS OF CERTIFICATION

Designated Biologist Selection

BIO-1 The project owner shall submit the resume(s), including contact information, of the proposed Designated Biologist and any Biological Monitor(s) to the Compliance Project Manager (CPM) for approval.

Verification: The project owner shall submit the resume and contact information for the Designated Biologist and Biological Monitor(s) to the CPM at least 60 days prior to the start of any site (or related facilities) mobilization. The Designated Biologist must have a through understanding of the Conditions of Certification, the federal and state permits, and the monitoring procedures established in the BRMIMP. Site and related facility activities shall not commence until an approved Designated Biologist is available to be on site and to train all Biological Monitors. Biological Monitor(s) training shall include familiarity with the Conditions of Certification, the federal and state permits, and the monitoring procedures established in the BRMIMP.

The Designated Biologist must meet the following minimum qualifications:

1. Bachelor's Degree in biological sciences, zoology, botany, ecology, or a closely related field;
2. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; and

3. At least one year of field experience with biological resources found in or near the project area.

The Biological Monitor(s) shall have a background in biology or environmental science and be approved by the CPM.

If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM at least ten working days prior to the termination or release of the preceding Designated Biologist. In an emergency, the project owner shall immediately notify the CPM and submit the qualifications of a short-term replacement. The CPM shall approve the short-term replacement within one business day. The short-term replacement shall have all the duties and rights of a Designated Biologist while a permanent Designated Biologist is proposed to the CPM for consideration.

CB II Comments:

CB II agrees with the Staffs Proposed Condition as written.

Designated Biologist and Biological Monitor Duties

BIO-2 The project owner shall ensure that the Designated Biologist and Biological Monitor(s) shall perform the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, and closure activities:

1. Advise the project owner's Construction and Operation Managers on the implementation of the biological resources Conditions of Certification;
2. Be available to supervise or conduct mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as wetlands and special status species or their habitat;
3. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
4. Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (parking lots) for animals in harms way;
5. Notify the project owner and the CPM of any non-compliance with any biological resources Condition of Certification; and

6. Respond directly to inquiries of the CPM regarding biological resource issues.

Verification: The project owner shall ensure that the Designated Biologist and Biological Monitor(s) maintain written records of the tasks described above, and summaries of these records shall be submitted in the Monthly Compliance Reports (MCR).

During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report.

CB II Comments:

Although CB II agrees with the Staffs Proposed Condition as written, we request Staff to implement **BIO-3** from the BEP Conditions of Certification in order to maintain consistency between the two projects.

Designated Biologist and Biological Monitor Authority

BIO-3 The project owner's Construction/Operation Manager shall act on the advice of the Designated Biologist or Biological Monitor(s) to ensure conformance with the biological resources Conditions of Certification.

If required by the Designated Biologist or Biological Monitor(s), the project owner's Construction/ Operation Manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist as sensitive or which may affect a sensitive area or species.

The Designated Biologist and Biological Monitor(s) shall:

1. Require a halt to all activities in any area when it is determined that there would be an adverse impact to sensitive species if the activities continued;
2. Inform the project owner and the Construction/Operation Manager when to resume activities; and
3. Notify the CPM if there is a halt of any activities, and advise the CPM of any corrective actions that have been taken, or will be instituted, as a result of the halt.

Verification: The Designated Biologist shall notify the CPM and project owner immediately (and no later than the following morning of the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities. The project owner shall notify the CPM of the circumstances and actions being taken to resolve the problem.

Whenever corrective action is taken by the project owner, a determination of success or failure will be made by the CPM within five working days after receipt of notice that corrective action is completed, or the project owner will be notified by the CPM that coordination with other agencies will require additional time before a determination can be made.

CB II Comments:

Although CB II agrees with the Staffs Proposed Condition as written, we request Staff implement **BIO-4** from the BEP Conditions of Certification in order to maintain consistency between the two projects.

Worker Environmental Awareness Program

BIO-4 The project owner shall develop and implement a CPM approved Worker Environmental Awareness Program (WEAP) in which each of its employees, as well as employees of contractors and subcontractors who work on the project site or any related facilities during site mobilization, ground disturbance, grading, construction, operation and closure are informed about sensitive biological resources associated with the project.

The WEAP must:

1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting written material is made available to all participants;
2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas;
3. Present the reasons for protecting these resources;
4. Present the meaning of various temporary and permanent habitat protection measures;
5. Identify whom to contact if there are further comments and questions about the material discussed in the program; and
6. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines.

The specific program can be administered by a competent individual(s) acceptable to the Designated Biologist.

Verification: At least 60 days prior to the start of any site (or related facilities) mobilization, the project owner shall provide to the CPM two (2) copies of the WEAP and all supporting written materials prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.

The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.

The signed training acknowledgement forms shall be kept on file by the project owner for a period of at least six months after the start of commercial operation.

During project operation, signed statements for active project operational personnel shall be kept on file for six months following the termination of an individual's employment.

CB II Comments:

CB II agrees with the Staffs Proposed Condition as written.

Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP)

BIO-5 The project owner shall submit two copies of the proposed BRMIMP to the CPM (for review and approval and to CDFG and USFWS (for review and ~~comment~~ ***approval***) and shall implement the measures identified in the approved BRMIMP.

The final BRMIMP shall identify

1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the project owner;
2. All biological resources Conditions of Certification identified in the Commission's Final Decision;
3. All biological resource mitigation, monitoring and compliance measures required in federal agency terms and conditions, such as those provided in the USFWS Biological Opinion;
4. All biological resources mitigation, monitoring and compliance measures required in other state agency terms and conditions, such as those provided in the CDFG Incidental Take Permit and Streambed Alteration Agreement and Regional Water Quality Control Board permits;
5. All biological resources mitigation, monitoring and compliance measures required in local agency permits, such as site grading and landscaping requirements;
6. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation and closure;
7. All required mitigation measures for each sensitive biological resource;

8. Required habitat compensation strategy, including provisions for acquisition, enhancement, and management for any temporary and permanent loss of sensitive biological resources;
9. A detailed description of measures that shall be taken to avoid or mitigate temporary disturbances from construction activities;
10. ~~All locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction;~~
11. ~~Aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities - one set prior to any site or related facilities mobilization disturbance and one set subsequent to completion of project construction. Include planned timing of aerial photography and a description of why times were chosen;~~
12. Duration for each type of monitoring and a description of monitoring methodologies and frequency;
13. Performance standards to be used to help decide if/when proposed mitigation is or is not successful;
14. All performance standards and remedial measures to be implemented if performance standards are not met;
15. A discussion of biological resources related facility closure measures;
16. A process for proposing plan modifications to the CPM and appropriate agencies for review and approval; and
17. A copy of all biological resources permits obtained.

Verification: The project owner shall provide the specified document at least ***30*** ~~60~~ days prior to start of any site (or related facilities) mobilization.

The CPM, in consultation with the CDFG, the USFWS and any other appropriate agencies, will determine the BRMIMP's acceptability within ***15*** ~~45~~ days of receipt.

The project owner shall notify the CPM no less than five working days before implementing any modifications to the approved BRMIMP to obtain CPM approval.

Any changes to the approved BRMIMP must also be approved by the CPM in consultation with CDFG, the USFWS and appropriate agencies to ensure no conflicts exist.

Within thirty (30) days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's site mobilization, ground disturbance, grading, and construction phases, and which mitigation and monitoring items are still outstanding.

BIOLOGICAL RESOURCES

CB II Comments:

CB II does not agree with Staff's Proposed Condition as written. Staff has included several topics to be described in the BRIMP (which we agree are good standards), but are not applicable to BEP II activities. Specifically, there is no need for habitat compensation since the 152 acre BEP project lands have been fully compensated at the time of licensing. The 152 acre site (with the exception of the Cultural Resources Avoidance Area) is "fenced" and has been completely disturbed as part of the BEP construction process, therefore no sensitive biological resource areas exist. Likewise there is no purpose or need for performing aerial photography. We suggest Staff implement **BIO-14** from the BEP Conditions of Certification in order to maintain consistency between the two projects.

Construction Mitigation Management to Avoid Harassment or Harm

BIO-6 The project owner shall manage their construction site, and related facilities, in a manner to avoid or minimize impacts to the local biological resources.

Measures to be implemented are:

1. Install temporarily fence and provide wildlife escape ramps for construction areas that contain steep walled holes or trenches if outside of ***the existing*** ~~an approved~~ permanent exclusionary fence. The temporary fence shall be hardware cloth or similar materials that are approved by USFWS and CDFG;
2. Ensure all food-related trash is disposed of in closed containers and removed at least once a week.
3. Prohibit feeding of wildlife by staff or contractors;
4. Prohibit non-security related firearms or weapons from being brought to the site;
5. Prohibit pets from being brought to the site;
6. Report all inadvertent deaths of sensitive species to the appropriate project representative. Injured animals shall be reported to CDFG and the project owner shall follow instructions that are provided by CDFG. . All incidences of wildlife injury or mortality resulting from project-related vehicle traffic on roads used to access the project shall be reported in the MCR;
7. Minimize use of rodenticides and herbicides in the project area;
8. Cover selected electrical equipment with the potential to electrocute wildlife within the substation with appropriate UV resistant material;

9. Shield lighting to prevent off-site impacts and limit its use during night-time construction to only what is necessary for ***performing work activities and*** safety;
10. Install power lines following Avian Power Line Interaction Committee's guidelines; and
11. Follow the July 1999 (or most current) desert tortoise handling procedures whenever a desert tortoise is encountered.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP.

CB II Comments:
CB II proposes has proposed modification of the construction measure regarding temporary fencing since the entire 152 acre site is permanently fenced and all construction activities will take place within this property. Additionally, we have modified #9 such that lighting for work activities is allowed.

Exotic Weed Control Program

BIO-7 A comprehensive exotic control program for California Department of Agriculture List A, List B, and Red Alert weeds, shall be implemented at the 76-acre power plant site ***(excluding the Cultural Resource Avoidance Area)***. This program shall be implemented until such time that the adjacent land use on the north and west sides in no longer a natural community or agriculture, or until the plant is permanently closed. The natural vegetation adjacent to the BEP II site shall be monitored to determine if it has been modified or degraded. Any seed mixture applied following ground disturbance shall be certified as weed-free.

Verification: The project's Designated Biologist shall submit a report to the CPM for approval. The report shall include photos of the adjacent land or otherwise document any changes in an annual report until such time as the CPM approves cessation. The Designated Biologist shall submit the seed mixture to be used following ground disturbance.

CB II Comments:
CB II agrees with the Staffs Proposed Condition as modified.

Fence Monitoring

BIO-8 The project owner shall conduct maintenance monitoring of the wildlife exclusion fencing on a monthly basis and complete repairs within one week of a problem being identified. Temporary fencing must be installed at any gaps if it shall remain open overnight.

Verification: The project owner shall submit records of all monitoring dates, identify the locations that required repair, and any corrective actions taken in the MCR and Annual Compliance Report.

CB II Comments:
CB II agrees with the Staff's Proposed Condition as written.

BIO-9 The Designated Biologist and CPM shall be contacted within 24-hours if wildlife is found within the fenceline during construction. Actions to prevent harm shall immediately be taken. The local office of the California Department of Fish and Game shall be contacted if wildlife is found within the fenceline during operations.

Verification: For any wildlife found within the fenceline during construction a report shall be completed by the Designated Biologist and submitted with the MCR. For any wildlife found within the fenceline during operations, a report shall be completed by the plant manager and submitted with the Annual Compliance Report.

CB II Comments:
BIO-9 is too vague and general in nature. "Wildlife" can pertain to just about anything. "General" wildlife are not protected by State or Federal laws and regulations. While every effort has been and will continue to be made to remove wildlife to safety, reporting to the CPM is a courtesy unless the wildlife is protected by state or federal laws and does not belong as a Condition of Certification.

The BEP conditions of certification do not contain such a condition. Additionally, the 152 acre property is completely fenced. We note there is no fencing between the areas where BEP and BEP II project areas. We suggest Staff delete this condition in order to maintain consistency between the two projects.

Evaporation Pond Monitoring

BIO-10 Following the start of operations, both cells of the evaporation ponds shall be monitored twice monthly (once every two weeks, two weeks apart) by the Designated Biologist or a CPM-approved individual who can identify birds of the area. Records shall be made of the type of birds (e.g, waterfowl, shorebirds, etc.), number of birds, and behavior. If a substantial number of bird and wildlife are found to be using the ponds, remedial actions to reduce bird use must be implemented. The project owner shall submit an Evaporation Pond Monitoring Report to the CPM four times a year (every three months). This monitoring shall continue for the first three

years of plant operation, and depending on the results, could be discontinued after consultation with the CPM or continue as needed.

Verification: Thirty (30) days prior to the start of operations, the project owner shall provide copies of the Evaporation Pond Monitoring Plan and all supporting materials to the CPM for approval. The Plan shall clearly identify the amount of bird use sufficient to invoke remedial actions to reduce bird use. The Plan shall include survey methodology and performance standards to be used to help decide if/when proposed remedial actions are or are not successful and remedial measures to be implemented if performance standards are not met. All bird use indices, thresholds and remedial actions to be taken must be approved by the CPM, in consultation with California Department of Fish and Game and the U.S. Fish and Wildlife Service. An Evaporation Pond Monitoring Report shall be submitted to the CPM every three months. In the Evaporation Pond Monitoring Report, the project owner shall submit records of all monitoring dates, data collected, and any corrective actions taken. The Report shall be sent to the Federal Aviation Administration, City of Blythe, Blythe Airport Staff, ALUC, California Department of Fish and Game, U.S. Fish and Wildlife Service, and the CPM. The monitoring must continue until the applicant is given written approval from the CPM to stop.

CB II Comments:
CB II suggests this condition be replaced by **BIO-7** from the BEP conditions of certification in order to maintain consistency of monitoring and reporting between the two adjacent projects. CB II does not see the need, nor merit of any modifications to the originally approved condition. Staff has not provided any background in the PSA, which suggests any change in the regulatory environment, the BEP condition does not provide adequate mitigation, nor changes in LORS, which would require any different condition than was implemented for BEP.

BIO-11 The water quality in the evaporation ponds shall be monitored monthly for the first three years of operation for constituent concentrations. Collections of invertebrates shall be taken from each cell in the evaporation pond every three months, and these samples shall be tested for selenium concentrations. Selenium concentrations in water which exceeds 0.005 mg/L and concentration in aquatic invertebrates which exceed 3 parts per million (dry weight) shall be considered hazardous to wildlife. The project owner shall submit an Evaporation Pond Monitoring Report to the CPM four times a year (every three months). This monitoring shall continue for the first three years of plant operation, and depending on the results, could be discontinued at that time or continues as needed after consultation with the CPM.

Verification: Thirty (30) days prior to the start of operations, the project owner shall provide copies of the Evaporation Pond Monitoring Plan and all supporting materials to the CPM for approval. The Plan shall clearly identify which constituent concentrations shall be monitored. An Evaporation Pond Monitoring Report shall be submitted to the CPM every three months. In the Evaporation Pond Monitoring Report, the project owner shall submit records of all monitoring dates, certified laboratory results, and any corrective actions taken. The Report shall be submitted to the Federal Aviation Administration, City of Blythe, Blythe Airport Staff, ALUC, California Department of Fish and Game, U.S. Fish and Wildlife Service, and the CPM.

CB II Comments:
CB II suggests this condition be replaced by **BIO-8** from the BEP conditions of certification in order to maintain consistency of monitoring and reporting between the two adjacent projects. CB II does not see the need, nor merit of any modifications to the originally approved condition. Staff has not provided any background in the PSA which suggests any change in the regulatory environment, the BEP condition does not provide adequate mitigation, nor changes in LORS which would require any different condition than was implemented for BEP.

Burrowing Owl Surveys and Compensation for Impacts

BIO-12 The project owner shall survey for burrowing owl activities to assess owl presence and need for further mitigation. Active burrows shall be monitored by the Designated Biologist or Biological Monitor(s) throughout construction to identify additional losses from nest abandonment. The project owner shall protect lands and enhance or install burrows to compensate for impacts to active burrows at the site, along related facilities, or within 150 feet of these features. The project owner shall protect lands to compensate for permanent losses of potential upland foraging habitat.

Verification: The project owner shall survey for burrowing owl activities to assess owl presence and need for further mitigation 30 days prior to site mobilization. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. Surveys shall be completed for occupied burrows at the fenced parcel and for a 500 foot buffer around these features (where possible and appropriate based on habitat). All occupied burrows shall be mapped on an aerial photo. At least 15 days prior to the expected start of any project-related ground disturbance activities, or restart of activities, the project owner shall provide the burrowing owl survey results and mapping to the CPM and CDFG.

Based on the burrowing owl survey results, the following three actions shall be taken by the project owner to offset impacts during construction:

1) Where a burrowing owl is sighted:

   a) If paired owls are present in areas scheduled for disturbance or degradation (e.g., grading) or within 150 feet of a permanent project feature, and nesting is not occurring, owls are to be removed per CDFG-approved passive relocation. Passive relocation is only acceptable typically from September 1 to January 31, to avoid disruption of breeding activities. The specific dates for acceptable passive relocation are dependent on the end of burrowing owl nesting season during that calendar year.

   b) If paired owls are present within 150 feet of a temporary project disturbance (e.g., transmission line stringing), active burrows shall be monitored by the Designated Biologist or Biological Monitor(s) throughout construction to identify additional losses from nest abandonment and/or loss of reproductive effort (e.g., killing of young).

   c) If paired owls are nesting in areas scheduled for disturbance or degradation, nest(s) shall be avoided from February 1 through August 31 by a minimum of a 250-foot buffer or until fledging has occurred. The specific dates for acceptable passive relocation are dependent on the end of burrowing owl nesting season during that calendar year. Following fledging, owls may be passively relocated.

2) Based on the actions taken during construction, the project owner shall provide a land protection and monitoring proposal for CPM approval, and to the CDFG for review 60 days prior to commercial operation. The land protection shall be based on the following premises:

   d) To offset the loss of active foraging and burrow habitat, the project owner shall provide 6.5 acres of protected lands within the Blythe area for each pair of owls or unpaired resident bird that was passively relocated or for which project-related disturbance caused nest abandonment and/or loss of reproductive effort (e.g., killing of young). Protection of additional habitat acreage per pair or unpaired resident bird may be applicable in

some instances (such as for gross negligence on the part of the project owner or a contractor).

e) To offset the permanent loss of potential foraging and burrow habitat, the project owner must provide 0.5 acre of land within the Blythe Area for every acre of suitable habitat they permanently converted to an unsuitable use (e.g., ponds or buildings) that was within 300 feet of a burrowing owl pair or unpaired resident.

f) The project owner's protected lands shall be within 1,800 feet of occupied burrowing owl habitat.

g) For each occupied burrow destroyed during construction, existing unsuitable burrows on the protected lands shall be enhanced (e.g., cleared of debris or enlarged) or new burrows installed at a ratio of 2:1.

h) The project owner must provide funding for long-term management and monitoring of protected lands based on the Center for Natural Lands Management Property Analysis Record, or similar cost analysis program.

3) Within 30 days prior to the start of commercial operation, the project owner shall submit to the CPM two copies of the relevant legal paperwork that protects lands in perpetuity (e.g., a conservation easement as filed with the Riverside County Assessor), and any related documents which discuss the types of habitat protected on the parcel. If a private mitigation bank is used, the project owner shall provide a letter from the approved land management organization stating the amount of funds received, the amount of acres purchased in long term management, and their location.

CB II Comments

For the reasons discussed in Comment 2 above, CB II requests Staff delete this Condition of Certification. The Condition is not warranted.

Future Work on Cultural Resources Area

BIO-13 The project owner shall prohibit habitat disturbance in the Cultural Resources ***Avoidance*** Area unless all regulatory parties have been adequately notified in writing and have given approval. The use of pick-up trucks and automobiles shall be limited and shall only be operated during the daylight hours. All persons entering the ***Cultural Resources Avoidance Area*** ~~site~~ must have completed the Worker Environmental Awareness Program.

Verification: A summary of any activities in the Cultural Resource Area shall be made part of the annual reporting to the CPM. All dates of entry and purpose, a copy of signed training acknowledgement forms, and a report on any wildlife sightings shall be part of the annual report. The project owner shall notify the Commission, Western Area Power Administration, U.S. Fish and Wildlife Service, and California Department of Fish and Game 60 days prior to any proposed construction in the Cultural Resource Area. Thirty (30) days prior to construction, the Cultural Resource Area shall be fenced in a manner that excludes desert tortoise with a biological monitor present. A clearance survey for desert tortoises within the fenceline must be completed prior to commencing work within the fenceline. The results of the desert tortoise clearance survey shall be sent to the same parties listed above for review and comment prior to initiating construction within the fenceline.

CB II Comments:
CB II agrees with BIO-13 as modified.

ATTACHMENT 1

TO

BIOLOGICAL RESOURCES

COMMENTS

MINUTE ORDER
MARCH 23, 2004

BLYTHE ENERGY PROJECT II -PRC CONDITIONS. Assistant City Manager Hull reported that the Project Review Committee conditions that have been levied against the second power plant, Caithness Blythe II (CBII). Attached are the PRC conditions inside the property line that relate to the CBII and are necessary to the project's development within the City of Blythe. These conditions will be handled through the CEC/CBO process. No public comment.

Vice Mayor Thomas moved to approve the list of PRC conditions be forwarded to the California Energy Commission for inclusion in the Conditions for Certification for the Caithness Blythe II, project. Seconded by Councilman Soto. Unanimous Aye vote.

STATE OF CALIFORNIA)
: ss.
COUNTY OF RIVERSIDE)

I Virginia Rivera, City Clerk of the City of Blythe, do hereby certify that the above and foregoing is a full, true and correct copy of the Minute Order in my office.

IN WITNESS WHEREOF I herewith set by hand and affix the official Seal of the City of Blythe on the 26th day of March 2004.

Virginia Rivera

Virginia Rivera, City Clerk

City of Blythe
Development Services Department
235 North Broadway
Blythe, California 92225

Jennifer Wellman
Planning Director
(760) 922-6130

February 19, 2004

Caithness Blythe II, LLC
565 Fifth Avenue, 28th & 29th Floors
New York, NY 10017

Robert Holt
The Holt Group
321 W. Hobsonway, Suite A
Blythe, CA 92225

Re: Finalization of PRC 2002-10 Letter of Conditions for Blythe Energy II - All conditions stipulated in this correspondence superseded conditions stipulated in all previous PRC 2002-10 letters.

Next Level of Submittal: To City Council for adoption of Blythe Energy II/City of Blythe Memorandum of Understanding with PRC letter as an attachment.

Dear Project Applicant and Agent:

The Project Review Committee, during the course of its' regularly scheduled meeting of February 11, 2004 has determined that materials and data submitted for finalization of the above-referenced project are complete with no further action required by the applicant at this time.

cc: Committee Members

The following topics, concerns, and requirements were discussed at the Project Review Committee (PRC) meeting.

The City of Blythe Building Department/CBO is requiring the following:

1. On site fire flow, fire department access and spacing of fire hydrants shall be installed as required by the most current State of California Fire Code. Any turn in the access or interior roads shall have not less than a forty (40') foot turning radius from curb to curb in order to adequately accommodate emergency vehicles. (Note: See also #26 concerning requirement for hydrant in Hobsonway right-of-way.) All emergency access routes will be connected via on site roads and will not be dead-ended. All onsite emergency access roads will be constructed of an all-weather material. BEP II emergency access roads have been identified on the revised site plan.

2. Owner shall submit a Construction Fire Protection Plan to the City of Blythe for review and approval 60 days prior to flammable materials being placed on the site of the (BEP II). Use of the BEP facilities for temporary fire water supply shall be acceptable during construction of BEP II as approved by the CEC and a Fire Assessment Engineer.

3. A detailed site grading and drainage plan will be submitted to the City for review and approval sixty (60) days prior to commencing any grading activities. The site grading & drainage plan shall include pad elevations, drainage courses and facilities, property corners, and attached soils report including soil compaction testing and results. The storm water runoff calculations shall be provided with the grading and drainage plan and include runoff from off site areas impacting the BEP II site, and account for the drainage improvements along Riverside Drive and Buck Blvd. which have been constructed as part of the BEP.

4. The installation of any septic tanks and/or leach lines must be approved and permitted by the Riverside County Environmental Health Department.

5. Plans, specifications and engineering calculations must be prepared and designed by an appropriately licensed engineer or architect in the State of California in accordance with California Building Codes and requirements.

6. A lighted directory board acceptable to the Fire Marshal/CBO shall be installed adjacent to the primary and secondary access into the project depicting emergency reporting locations, roads and hydrant locations. Street addresses must be displayed at the main entrance and be plainly visible from the corresponding right-of-way.

7. The applicant/developer is required to provide general indemnity normally afforded city governments as it relates to the construction of the subject project within the Administrative Sections of the California Building Code.

8. Caithness Blythe II (CB II) and Blythe Energy shall execute, notarize and record with the County of Riverside a covenant which restricts either party from a sale or reassignment of properties which impact or restrict grading, drainage, shared utilities, or emergency vehicle access between the BEP and BEP II sites for the life of the projects. A notarized original of said agreement shall be provided to the City of Blythe.

9. Design and construction of the subject project shall be in compliance with all applicable Title 24, Parts 1-12 California Code and Regulations.

The Public Works Department is requiring the following:

10. Hydrology calculations must be provided to properly size the required retention basin for all tributary run-off whether this basin is ultimately located on the property of the BEP or proposed BEP II project. A storm water retention/disposal plan for the entire project must be submitted to the City for approval.

The Planning Department is requiring the following:

11. Exterior colors for each building and all related infra- or superstructure must be accurately presented on a color rendering (or renderings) and must be approved by the City of Blythe. Such approvals should be obtained prior to the ordering of any materials for the project that would be affected by this requirement.

12. Lighting for the plant shall not shine onto other properties or onto the adjacent public rights-of-way. In addition, all on site exterior lighting shall conform to generally accepted practices of preventing light pollution and impacting the night skyline by providing appropriate shielding and down casting of lighting while providing the required exit path illumination.

13. Any signage to be utilized for this project must be approved by the Development Services Department.

14. Separate parking plans must be approved by the Development Services Department that adequately address the projects on-site parking needs both: a) during the construction phase of the project; and, b) on an on-going basis once the plant is completed. All permanent parking must be hard surfaced and meet all applicable City standard and approvals; a temporary parking plan (including the type of surfacing to be utilized) must be approved by the City and must be maintained at all times in a dust free condition.

The Police Department is requiring the following:

15. Employment opportunities for the BEP II project shall be noticed at a common location outside the main entrance at the lighted display board.

City Administration is requiring the following:

16. In the interest of air traffic safety:

    - If discharge from the cooling towers could under any circumstances form a visible plume, then the current best available technology shall be utilized to disperse such a plume (or plumes).

    - Modeling should be done to determine if the stacks for the subject project (as shown on the preliminary site plan) would be immediately below the turning point for VFR traffic. If this is the case, then the applicant/developer should consider re-aligning the stacks.

The Riverside County Environmental Health is requiring the following:

17. All wells, domestic water systems and sewage systems must be approved by this department prior to any construction. All industrial and hazardous or toxic chemicals must be cleared with the hazardous materials section prior to either the utilization or storage of such material at this project site. Any fuel (or petroleum storage facilities) must be approved by the Hazardous Materials Section prior to construction. All wastes must be stored and disposed of in a manner approved by this department. If there are any questions, call 760-863-7000.

Verizon is requiring the following:

18. The applicant/developer must contact the Verizon engineer for Verizon's requirements.

If you have any questions or need clarification on any of the conditions set forth, please contact me at 760-922-6130 ext. 246.

Cordially,

Jennifer Wellman
Planning Director

CULTURAL RESOURCES

Applicant's Comments to BEP II Preliminary Staff Assessment Cultural Resources		
Number	**Comment**	**Page**
1	Native American Contacts – CEC Staff should update this section to reflect the completion of the recent Ethnographic Study for BEP and BEP II. Additionally, CEC Staff should include the summary (Provided below) of the Native American Consultation activities performed for the BEP and BEP II projects. As indicated, there has been extensive consultation with the Tribes performed for these Projects. CB II cannot accept at this late stage, nearly 18 months after BEP II was deemed data adequate, Staff's position that they have not had sufficient time to complete any additional consultation which they feel is necessary. All consultation performed to date has not indicated any significant impacts by the Projects and Staff has sufficient information to make, without further delay such a determination.	4.3-10 thru 4.3-14
2	Compliance with Applicable LORS – Staff has indicated that Western does not have an active agreement with BEP II to conduct work for the interconnection. CB II notes that CB II does have an agreement with Western to conduct work for the interconnection and CB II has funded Western.	4.3-15
3	Conclusions and Recommendations – 1.) A Letter will be provided by the City of Blythe prior to FSA, 2.) Staff should conclude its efforts immediately, 3.) There are no ground disturbance activities outside of the existing Project fenceline.	4.3-18
4	General – It is important for Staff to note in their analysis that over 200,000 cubic yards of excess soils has been placed on the BEP II Site. Thus, the existing level of the grade is approximately 5 feet above the original grade. Excavations which do not penetrate the original grade should not require any involvement by a CRS or CRM.	
5	CB II has concluded the review process with the City of Blythe Project Review Committee and is providing a copy of the final conditions as Cultural Resources Attachment 1. CB II notes there are no "off-site" improvements/ requirements imposed by the City of Blythe.	

CULTURAL RESOURCES

NATIVE AMERICAN CONSULTATION FOR THE BLYTHE ENERGY PROJECTS

The following is a chronological list of the Native American contacts made in the process of permitting and licensing of the Blythe Energy Project (BEP) and the Blythe Energy Project - Phase II (BEP II).

1999

September 13, 1999. On behalf of Western Area Power Administration (Western), Dr. Michael Baksh of Tierra Environmental Services sent a total of 24 letters to Native American contacts regarding the original 76-acre BEP site. Letters were sent to the following representatives:

- Colorado River Tribes: Letters to Chairman of the Tribal Council, Director and Cultural Archaeologist of the Colorado River Indian Tribes Museum, and Chairperson of the Mohave Elders Committee
- Fort Yuma Quechan Tribe: Letters to President of the Tribal Council and Chairman of the Quechan Cultural Committee
- Fort Mojave Tribe: Letters to Chairperson of Tribal Council and President of the Aha Makav Cultural Society
- Salt River Pima-Maricopa Tribe: Letter to President of the Indian Community
- Tohono O'Odham Nation: Letters to Chairman of the Tohono O'Odham Nation, the Chairman of the Cultural Preservation Committee, and Program Manager of the Cultural Affairs Office
- Cocopah Tribe: Letters to Chairperson of the Cocopah Tribal Council and to the Director of Museum Cultural Programs
- Hualapai Tribe: Letters to the Chairman of the Hualapai Tribal Council and Program Manager of the Office of Cultural Resources
- Yavapai-Prescott Tribe: Letters to the President of the Yavapai-Prescott Board of Directors and the Chairperson of the Cultural Research Committtee
- Havasupai Tribe: Letter to the Chairman of the Havasupai Tribal Council
- Chemehuevi Tribe: Letters to the Chairperson and Vice Chairman of the Chemehuevi Tribal Council, and to the Director of the NAGPRA Committee

October 1999. The Aha Makav Cultural Society (Fort Mojave Tribe) replied in October that the area was of interest to Fort Mojave, but that no specific resources were known to be present.

CULTURAL RESOURCES

2000

May 2000. Western sent informational letters regarding the original 76-acre BEP site to the tribal contacts listed above and to the Torres-Martinez Desert Cahuilla Indians and the Hopi Tribe in Kykotsmovi, Arizona.

July - September 2000. Western followed up the May 2000 information letters with phone calls to each of the tribal representatives on the mailing lists. None of the tribes contacted expressed concerns with the project, or provided information on potentially sensitive resources in the area of the original BEP site.

November 2000. At the project evidentiary hearing held in Blythe, California, Mr. Matthew Lieva Sr., a member of the Chemehuevi Tribe and representative of the Salt Song Project, made verbal comments at the hearing raising concerns about the project location. Mr. Lieva was not speaking on behalf of the Chemihueve Tribe. Mr. Lieva did not offer specific information regarding resources at the BEP project site.

2001

March 2001. The California Energy Commission (CEC) published its Commission Decision on the BEP Application for Certification. The Commission determined that no significant Native American cultural resource would be impacted by the BEP.

2002

January and February 2002. Western made telephone calls and sent project descriptive information to tribal leaders regarding the BEP II proposal for the adjacent 76-acre site.

February 2002. A Western representative visited the Fort Yuma Quechan reservation and met with the head of the Culture Committee at the Tribal Museum.

February 2002. Western and the CEC held a Native American consultation meeting at the Blythe, California City Hall, including a visit to the BEP II project site. Representatives of the Fort Mojave Tribe and Mohave elders representing the Colorado River Indian Tribes attended the meeting.

August 2002. As a result of discussions between Western, CEC, and Native American contacts, BEP II contracted with an ethnographer to conduct an ethnographic study of the BEP and BEP II project sites.

CULTURAL RESOURCES

2003

January 29, 2003. The ethnographer and Western's Native American liaison met with three representatives of the Fort Yuma Quechan Tribe Culture Committee at the Fort Yuma Reservation.

September 17, 2003. The completed ethnographic study was sent to tribal representatives on September 17, 2003. Native American tribes determined to have cultural affiliation with the project area were contacted as part of the ethnographic study including the Fort Mojave Indian Tribe, the Colorado River Indian Tribes (Mohave and Chemehuevi), the Fort Yuma Quechan Tribe, and the Salt River Pima-Maricopa Indian Community.

CULTURAL RESOURCES

PROPOSED CONDITIONS OF CERTIFICATION

CULTURAL RESOURCES STANDARD CONDITIONS

CUL-1 Prior to the start of ground disturbance, the project owner shall obtain the services of a **Cultural Resources Specialist (CRS)**, and one or more alternates, if alternates are needed, to manage all monitoring, mitigation and curation activities. The CRS may elect to obtain the services of **Cultural Resource Monitors (CRMs)** and other technical specialists, if needed, to assist in monitoring, mitigation and curation activities. The project owner shall ensure that the CRS evaluates any cultural resources that are newly discovered or that may be affected in an unanticipated manner for eligibility to the California Register of Historic Resources (CRHR). No ground disturbance shall occur prior to CPM approval of the CRS, unless specifically approved by the CPM.

CULTURAL RESOURCES SPECIALIST
The resume for the CRS and alternate(s) shall include information demonstrating that the minimum qualifications specified in the U.S. Secretary of Interior Guidelines, as published in the Code of Federal Regulations, 36 CFR Part 61 are met. In addition, the CRS shall have the following qualifications:

1. The technical specialty of the CRS shall be appropriate to the needs of the project and shall include a background in anthropology, archaeology, history, architectural history or a related field; and
2. At least three years of archaeological or historic, as appropriate, resource mitigation and field experience in California.

The resume of the CRS shall include the names and telephone numbers of contacts familiar with the work of the CRS on referenced projects, and shall demonstrate that the CRS has the appropriate education and experience to accomplish the cultural resource tasks that must be addressed during ground disturbance, grading, construction and operation. In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the CPM that the proposed CRS or alternate has the appropriate training and background to effectively implement the conditions of certification.

CULTURAL RESOURCES MONITOR

CRMs shall have the following qualifications:

1. a BS or BA degree in anthropology, archaeology, historic archaeology or a related field and one year experience monitoring in California; or
2. an AS or AA degree in anthropology, archaeology, historic archaeology or a related field and four years experience monitoring in California; or
3. enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historic archaeology or a related field and two years of monitoring experience in California.

CULTURAL RESOURCES TECHNICAL SPECIALISTS

The resume(s) of any additional technical specialists, e.g. historic archeologist, historian, architectural historian, physical anthropologist shall be submitted to the CPM for approval.

The project owner shall submit the resume for the CRS, and alternate(s) if desired, to the CPM for review and approval at least 45 days prior to the start of ground disturbance.

Verification: At least 10 days prior to a termination or release of the CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval.

At least 20 days prior to ground disturbance, the CRS shall provide a letter naming anticipated CRMs for the project and stating that the identified CRMs meet the minimum qualifications for cultural resource monitoring required by this condition. If additional CRMs are obtained during the project, the CRS shall provide additional letters to the CPM identifying the CRMs and attesting to the qualifications of the CRM, at least five days prior to the CRM beginning on-site duties. At least 10 days prior to beginning tasks, the resume(s) of any additional technical specialists shall be provided to the CPM for review and approval.

At least 10 days prior to the start of ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available for on-site work and is prepared to implement the cultural resources conditions of certification.

CULTURAL RESOURCES

CB II Comment:

CB II accepts the Condition as written.

CUL-2 Prior to the start of ground disturbance, the project owner shall provide the CRS and the CPM with maps and drawings showing the footprint of the power plant and all linear facilities. Maps shall include the appropriate USGS quadrangles and a map at an appropriate scale (e.g., 1:2000 or 1" = 200') for plotting individual artifacts. If the CRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the CRS and CPM. The CPM shall review submittals and in consultation with the CRS approve those that are appropriate for use in cultural resources planning activities.

If construction of the project would proceed in phases, maps and drawings not previously provided shall be submitted prior to the start of each phase. Written notification identifying the proposed schedule of each project phase shall be provided to the CRS and CPM.

At a minimum, the CRS shall be consulted ***as necessary*** ~~weekly~~ by the project construction manager to confirm area(s) to be worked ***where excavations will occur in previously undisturbed native soils,*** ~~during the next week~~ until ground disturbance is completed.

The project owner shall notify the CRS and CPM of any changes to the scheduling of the construction phases. No ground disturbance shall occur ***in areas which have not been previously disturbed*** prior to CPM approval of maps and drawings, unless specifically approved by the CPM.

Verification: The project owner shall submit the subject maps and drawings at least 40 days prior to the start of ground disturbance. The CPM will review submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.

If there are changes to any project related footprint, revised maps and drawings shall be provided at least 15 days prior to start of ground disturbance for those changes.

1. If project construction is phased owner shall submit the subject maps and drawings, if not previously provided, 15 days prior to each phase.
2. A current schedule of anticipated project activity ***in undisturbed areas*** shall be provided to the CRS ***as necessary*** ~~on a weekly~~ during ground disturbance and also provided in each Monthly Compliance Report (MCR).
3. The project owner shall provide written notice of any changes to scheduling of construction phases within five days of identifying the changes.

CULTURAL RESOURCES

CB II Comment:

This condition is acceptable with the noted changes. Extensive involvement by a CRS is not required due to the "disturbed" nature of the BEP II Site and the CB II's committed avoidance of the northern cultural resource area.

~~**CUL-3** Prior to the start of ground disturbance, the project owner shall submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by the CRS, to the CPM for approval. The CRMMP shall identify general and specific measures to minimize potential impacts to sensitive cultural resources. Copies of the CRMMP shall reside with the CRS, alternate CRS, each monitor, and the project owner's on-site manager. No ground disturbance shall occur prior to CPM approval of the CRMMP, unless specifically approved by the CPM.~~

~~The CRMMP shall include, but not be limited to, the following elements and measures.~~

~~1.A proposed general research design that includes a discussion of research questions and testable hypotheses applicable to the project area. A refined research design will be prepared for any resource where data recovery is required.~~

~~2.The following statement shall be added to the Introduction: Any discussion, summary, or paraphrasing of the conditions in this CRMMP is intended as general guidance and as an aid to the user in understanding the conditions and their implementation. If there appears to be a discrepancy between the conditions and the way in which they have been summarized, described, or interpreted in the CRMMP, the conditions, as written in the Final Decision, supercede any interpretation of the conditions in the CRMMP. (The Cultural Resources Conditions of Certification are attached as an appendix to this CRMMP.)~~

~~3.Specification of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during ground disturbance, construction, and post-construction analysis phases of the project.~~

~~4.Identification of the person(s) expected to perform each of the tasks, their responsibilities; and the reporting relationships between project construction management and the mitigation and monitoring team.~~

~~5.A discussion of the inclusion of Native American observers or monitors, the procedures to be used to select them, and their role and responsibilities.~~

6.A discussion of all avoidance measures (such as flagging or fencing), to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during construction and/or operation, and identification of areas where these measures are to be implemented. The discussion shall address how these measures would be implemented prior to the start of construction and how long they would be needed to protect the resources from project-related effects.

7.A discussion of the requirement that all cultural resources encountered shall be recorded on a DPR form 523 and mapped (may include photos). In addition, all archaeological materials collected as a result of the archaeological investigations (survey, testing, data recovery) shall be curated in accordance with The State Historical Resources Commission's "Guidelines for the Curation of Archaeological Collections," into a retrievable storage collection in a public repository or museum. The public repository or museum must meet the standards and requirements for the curation of cultural resources set forth at Title 36 of the Federal Code of Regulations, Part 79.

8.A discussion of any requirements, specifications, or funding needed for curation of the materials to be delivered for curation and how requirements, specifications and funding shall be met. If archaeological materials are to be curated, the name and phone number of the contact person at the institution. This shall include information indicating that the project owner will pay all curation fees and state that any agreements concerning curation will be retained and available for audit for the life of the project.

9.A discussion of the availability and the designated specialist's access to equipment and supplies necessary for site mapping, photographing, and recovering any cultural resource materials encountered during construction.

10.A discussion of the proposed Cultural Resource Report (CRR) which shall be prepared according to Archaeological Resource Management Report (ARMR) Guidelines.

Verification: The project owner shall submit the subject CRMMP at least 30 days prior to the start of ground disturbance. Per ARMR Guidelines the author's name shall appear on the title page of the CRMMP. Ground disturbance activities may not commence until the CRMMP is approved, unless specifically approved by the CPM. A letter shall be provided to the CPM indicating that the project owner would pay curation fees for any materials collected as a result of the archaeological investigations (survey, testing, data recovery).

CB II Comment:
This Condition is not applicable to the BEP II. Blythe Energy and CB II have conducted extensive analysis of the project site. Areas of the Site which could contain artifacts that are potentially eligible under the CRHR have been fenced

and will not be disturbed as part of the construction of BEP II. Additionally we note the BEP II site has over 200,000 cubic yards of excess soil resulting from the construction of BEP and that only portions of the construction will require excavation into the native soil layer approximately feet below existing grade.

CUL-4 ~~The project owner shall submit the Cultural Resources Report (CRR) to the CPM for approval. The CRR shall be written by the CRS and shall be provided in the ARMR format. The CRR shall report on all field activities including dates, times and locations, findings, samplings and analysis. All survey reports, Department of Parks and Recreation (DPR) 523 forms and additional research reports not previously submitted to the California Historic Resource Information System (CHRIS) and the State Historic Preservation Officer (SHPO) shall be included as an appendix to the CRR.~~

Verification: ~~The project owner shall submit the subject CRR within 90 days after completion of ground disturbance (including landscaping). Within 10 days after CPM approval, the project owner shall provide documentation to the CPM that copies of the CRR have been provided to the SHPO, the CHRIS and the curating institution (if archaeological materials were collected).~~

CB II Comment:
This Condition is not applicable to the BEP II. Blythe Energy and CB II have conducted extensive analysis of the project site. Areas of the Site which could contain artifacts that are potentially eligible under the CRHR have been fenced and will not be disturbed as part of the construction of BEP II. Additionally we note the BEP II site has over 200,000 cubic yards of excess soil resulting from the construction of BEP and that only portions of the construction will require excavation into the native soil layer approximately five feet below existing grade.

CUL-5 Prior to and for the duration of ground disturbance, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment. The training may be presented in the form of a video. The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Samples or visuals of artifacts that might be found in the project vicinity;
3. Information that the CRS, alternate CRS, and CRMs have the authority to halt construction to the degree necessary, as determined by the CRS, in the event of a discovery or unanticipated impact to a cultural resource;
4. Instruction that employees are to halt work on their own in the vicinity of a potential cultural resources discovery, and shall contact their supervisor and the CRS or CRM; and that redirection of work would be determined by the construction supervisor and the CRS;

5. An informational brochure that identifies reporting procedures in the event of a discovery;
6. An acknowledgement form signed by each worker indicating that they have received the training; and
7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

No ground disturbance shall occur prior to implementation of the WEAP program, unless specifically approved by the CPM.

Verification: The project owner shall provide in the Monthly Compliance Report the WEAP Certification of Completion form of persons who have completed the training in the prior month and a running total of all persons who have completed training to date.

CB II Comments:
CB II accepts the proposed condition as written.

~~**CUL-6** The project owner shall ensure that the CRS, alternate CRS, or CRMs shall monitor ground disturbance full time in the vicinity of the project site, linears and ground disturbance at laydown areas or other ancillary areas to ensure there are no impacts to undiscovered resources and to ensure that known resources are not impacted in an unanticipated manner. In the event that the CRS determines that full-time monitoring is not necessary in certain locations, a letter or e-mail providing a detailed justification for the decision to reduce the level of monitoring shall be provided to the CPM for review and approval prior to any reduction in monitoring.~~

~~CRMs shall keep a daily log of any monitoring or cultural resource activities and the CRS shall prepare a weekly summary report on the progress or status of cultural resources-related activities. The CRS may informally discuss cultural resource monitoring and mitigation activities with Energy Commission technical staff.~~

~~The CRS and the project owner shall notify the CPM by telephone or e-mail of any incidents of non-compliance with the conditions of certification and/or applicable LORS upon becoming aware of the situation. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the conditions of certification.~~

~~Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these conditions of certification.~~

~~A Native American monitor shall be obtained to monitor ground disturbance in areas where Native American artifacts may be discovered. Informational lists of concerned Native Americans and Guidelines for monitoring shall be~~

~~obtained from the Native American Heritage Commission. Preference in selecting a monitor shall be given to Native Americans with traditional ties to the area that shall be monitored.~~

~~**Verification:**During the ground disturbance phases of the project, if the CRS wishes to reduce the level of monitoring occurring at the project, a letter or e-mail identifying the area(s) where the CRS recommends the reduction and justifying the reductions in monitoring shall be submitted to the CPM for review and approval. Documentation justifying a reduced level of monitoring shall be submitted to the CPM at least 24 hours prior to the date of planned reduction in monitoring.~~

~~During the ground disturbance phases of the project, the project owner shall include in the MCR to the CPM copies of the weekly summary reports prepared by the CRS regarding project-related cultural resources monitoring. Copies of daily logs shall be retained and made available for audit by the CPM.~~

~~Within 24 hours of recognition of a non-compliance issue with the conditions of certification and/or applicable LORS, the CRS and the project owner shall notify the CPM by telephone of the problem and of steps being taken to resolve the problem. The telephone call shall be followed by an e-mail or fax detailing the non-compliance issue and the measures necessary to achieve resolution of the issue. Daily logs shall include forms detailing any instances of non-compliance. In the event of any non-compliance issue, a report written no sooner than two weeks after resolution of the issue that describes the issue, resolution of the issue and the effectiveness or the resolution measures, shall be provided in the next MCR.~~

~~One week prior to ground disturbance in areas where there is a potential to discover Native American artifacts, the project owner shall send notification to the CPM identifying the person(s) retained to conduct Native American monitoring. The project owner shall also provide a plan identifying the proposed monitoring schedule and information explaining how Native Americans who wish to provide comments will be allowed to comment. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM. The CPM will either identify potential monitors or will allow ground disturbance to proceed without a Native American monitor.~~

CB II Comment:

This condition is not appropriate for BEP II. See CB II Comments for CUL-7 below:

~~**CUL-7** The project owner shall grant authority to halt construction to the CRS, alternate CRS and the CRMs in the event previously unknown cultural~~

~~resource sites or materials are encountered, or if known resources may be impacted in a previously unanticipated manner (discovery). Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS.~~

~~In the event cultural resources are found or impacts can be anticipated, the halting or redirection of construction shall remain in effect until all of the following have occurred:~~

~~1.The CRS has notified the project owner, and the CPM has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning, including a description of the discovery (or changes in character or attributes), the action taken (i.e. work stoppage or redirection), a recommendation of eligibility and recommendations for mitigation of any cultural resources discoveries whether or not a determination of significance has been made.~~

~~2.The CRS, the project owner, and the CPM have conferred and determined what, if any, data recovery or other mitigation is needed; and~~

~~3.Any necessary data recovery and mitigation has been completed.~~

~~**Verification:** At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS and CRMs have the authority to halt construction activities in the vicinity of a cultural resource discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning~~.

CB II Comment:

This condition is not appropriate for BEP II for the reasons stated in CUL-3 and CUL-4. Condition CUL-5 from the BEP Commission Decision is a more appropriate condition considering the extensive work which has been performed at the BEP II Site and CB II suggests this condition be applied in the FSA. This condition is provided below:

BEP CUL- 5

CUL-5 The designated cultural resource specialist shall be available at all times to respond within 24 hours after pre-construction or construction activities have been halted due to the discovery of a cultural resource(s). The specialist, or representative of the project owner shall have the authority to halt or redirect construction activities if previously undiscovered cultural resource materials are encountered during vegetation clearance or earth disturbing activities or project site preparation or construction. If such resources are discovered, the

designated cultural resource specialist shall be notified and the project owner or project owner's representative shall halt construction in the immediate area in order to protect the discovery from further damage; project construction may continue elsewhere on the project. If such resources are found, the specialist shall contact the CPM and Western's archeologist as soon as possible for a determination of significance. If such resources are found and the CPM and/or Western's archeologist determines that they are or may be significant, the halting or redirection of construction shall remain in effect until:

- ***the specialist, the project owner, and the CPM have conferred and determined what, if any, data recovery or other mitigation is needed; and***

- ***any needed data recovery and mitigation has been completed.***

The designated cultural resources specialist, the project owner, and the CPM shall confer within five working days of the notification of the CPM to determine what, if any, data recovery or other mitigation is needed. If data recovery or other mitigation measures are required, the designated cultural resource specialist and team members shall monitor construction activities and implement the agreed upon data recovery and mitigation measures, as needed. All required data recovery and mitigation shall be completed expeditiously unless all parties agree to additional time. Western will report any discovery to the State Historic Preservation Officer as part of Western's responsibilities under Section 106.

Verification: ***Thirty (30) days prior to the start of vegetation clearance or earth disturbing activities or project site preparation, the project owner shall provide the CPM with a letter confirming that the designated cultural resources specialist has the authority to halt construction activities in the vicinity of a cultural resources find.***

CULTURAL RESOURCES

~~**CUL-8** Prior to any project-related activities, such as transmission line reconductoring, pole replacement, or any other project-related task which may result in ground disturbance that was not included in information provided to the Energy Commission, the project owner must determine the availability of current (i.e. within 5 years) cultural resource surveys of the proposed ground disturbance. If there are not current surveys, the project owner must ensure that new surveys are preformed. If cultural resources are identified that cannot be avoided, they must be evaluated for eligibility for the National Register of Historic Places and the CRHR.~~

~~The responsibility for the evaluation must be taken by persons meeting the Secretary of the Interior's Professional Qualification Standards in a discipline appropriate to the historic context within which the resource is being considered (OHP 1995). If significant cultural resources would be affected, then mitigation measures shall be determined in consultation with the CPM and Western.~~

Verification: ~~At least 30 days prior to ground disturbance associated with project-related activities not previously described in the AFC or other information provided to the Energy Commission, the project owner shall provide the results of any additional cultural resource surveys and evaluations in the form of a technical report (with request for confidentiality, if needed), along with any associated maps, to the CPM for review and approval. All required mitigation shall be completed prior to construction of the project-related activities.~~

CB II Comment:
This condition is not applicable to the BEP II. There are no cultural resources identified within the BEP II site. CUL-2 covers the intent of this condition. BEP II is entirely within the existing fenced site.

CuI-9 The project owner or its agents shall not conduct any activities within the fenced portion of CA-RIV-6370H or remove any portion of the fence without approval of the CPM. Any contract or agreement to purchase any interest in the project (or land identified in the AFC as the project area) must include a clause obligating the successor in interest to the terms of the Memorandum of Agreement between Western and the CA SHPO.

Verification: The project owner shall make a statement in each Monthly Compliance Report during construction and in each Annual Compliance Report during operation regarding compliance with this condition.

CB II Comment:
This condition is acceptable to CB II.

ATTACHMENT 1

TO

CULTURAL RESOURCES

COMMENTS

MINUTE ORDER
MARCH 23, 2004

BLYTHE ENERGY PROJECT II -PRC CONDITIONS. Assistant City Manager Hull reported that the Project Review Committee conditions that have been levied against the second power plant, Caithness Blythe II (CBII). Attached are the PRC conditions inside the property line that relate to the CBII and are necessary to the project's development within the City of Blythe. These conditions will be handled through the CEC/CBO process. No public comment.

Vice Mayor Thomas moved to approve the list of PRC conditions be forwarded to the California Energy Commission for inclusion in the Conditions for Certification for the Caithness Blythe II, project. Seconded by Councilman Soto. Unanimous Aye vote.

STATE OF CALIFORNIA)
: ss.
COUNTY OF RIVERSIDE)

I Virginia Rivera, City Clerk of the City of Blythe, do hereby certify that the above and foregoing is a full, true and correct copy of the Minute Order in my office.

IN WITNESS WHEREOF I herewith set by hand and affix the official Seal of the City of Blythe on the 26th day of March 2004.

Virginia Rivera, City Clerk

City of Blythe
Development Services Department
235 North Broadway
Blythe, California 92225

Jennifer Wellman
Planning Director
(760) 922-6130

February 19, 2004

Caithness Blythe II, LLC
565 Fifth Avenue, 28th & 29th Floors
New York, NY 10017

Robert Holt
The Holt Group
321 W. Hobsonway, Suite A
Blythe, CA 92225

Re: Finalization of PRC 2002-10 Letter of Conditions for Blythe Energy II - All conditions stipulated in this correspondence superseded conditions stipulated in all previous PRC 2002-10 letters.

Next Level of Submittal: To City Council for adoption of Blythe Energy II/City of Blythe Memorandum of Understanding with PRC letter as an attachment.

Dear Project Applicant and Agent:

The Project Review Committee, during the course of its' regularly scheduled meeting of February 11, 2004 has determined that materials and data submitted for finalization of the above-referenced project are complete with no further action required by the applicant at this time.

cc: Committee Members

The following topics, concerns, and requirements were discussed at the Project Review Committee (PRC) meeting.

The City of Blythe Building Department/CBO is requiring the following:

1. On site fire flow, fire department access and spacing of fire hydrants shall be installed as required by the most current State of California Fire Code. Any turn in the access or interior roads shall have not less than a forty (40') foot turning radius from curb to curb in order to adequately accommodate emergency vehicles. (Note: See also #26 concerning requirement for hydrant in Hobsonway right-of-way.) All emergency access routes will be connected via on site roads and will not be dead-ended. All onsite emergency access roads will be constructed of an all-weather material. BEP II emergency access roads have been identified on the revised site plan.

2. Owner shall submit a Construction Fire Protection Plan to the City of Blythe for review and approval 60 days prior to flammable materials being placed on the site of the (BEP II). Use of the BEP facilities for temporary fire water supply shall be acceptable during construction of BEP II as approved by the CEC and a Fire Assessment Engineer.

3. A detailed site grading and drainage plan will be submitted to the City for review and approval sixty (60) days prior to commencing any grading activities. The site grading & drainage plan shall include pad elevations, drainage courses and facilities, property corners, and attached soils report including soil compaction testing and results. The storm water runoff calculations shall be provided with the grading and drainage plan and include runoff from off site areas impacting the BEP II site, and account for the drainage improvements along Riverside Drive and Buck Blvd. which have been constructed as part of the BEP.

4. The installation of any septic tanks and/or leach lines must be approved and permitted by the Riverside County Environmental Health Department.

5. Plans, specifications and engineering calculations must be prepared and designed by an appropriately licensed engineer or architect in the State of California in accordance with California Building Codes and requirements.

6. A lighted directory board acceptable to the Fire Marshal/CBO shall be installed adjacent to the primary and secondary access into the project depicting emergency reporting locations, roads and hydrant locations. Street addresses must be displayed at the main entrance and be plainly visible from the corresponding right-of-way.

7. The applicant/developer is required to provide general indemnity normally afforded city governments as it relates to the construction of the subject project within the Administrative Sections of the California Building Code.

8. Caithness Blythe II (CB II) and Blythe Energy shall execute, notarize and record with the County of Riverside a covenant which restricts either party from a sale or reassignment of properties which impact or restrict grading, drainage, shared utilities, or emergency vehicle access between the BEP and BEP II sites for the life of the projects. A notarized original of said agreement shall be provided to the City of Blythe.

9. Design and construction of the subject project shall be in compliance with all applicable Title 24, Parts 1-12 California Code and Regulations.

The Public Works Department is requiring the following:

10. Hydrology calculations must be provided to properly size the required retention basin for all tributary run-off whether this basin is ultimately located on the property of the BEP or proposed BEP II project. A storm water retention/disposal plan for the entire project must be submitted to the City for approval.

The Planning Department is requiring the following:

11. Exterior colors for each building and all related infra- or superstructure must be accurately presented on a color rendering (or renderings) and must be approved by the City of Blythe. Such approvals should be obtained prior to the ordering of any materials for the project that would be affected by this requirement.

12. Lighting for the plant shall not shine onto other properties or onto the adjacent public rights-of-way. In addition, all on site exterior lighting shall conform to generally accepted practices of preventing light pollution and impacting the night skyline by providing appropriate shielding and down casting of lighting while providing the required exit path illumination.

13. Any signage to be utilized for this project must be approved by the Development Services Department.

14. Separate parking plans must be approved by the Development Services Department that adequately address the projects on-site parking needs both: a) during the construction phase of the project; and, b) on an on-going basis once the plant is completed. All permanent parking must be hard surfaced and meet all applicable City standard and approvals; a temporary parking plan (including the type of surfacing to be utilized) must be approved by the City and must be maintained at all times in a dust free condition.

The Police Department is requiring the following:

15. Employment opportunities for the BEP II project shall be noticed at a common location outside the main entrance at the lighted display board.

City Administration is requiring the following:

16. In the interest of air traffic safety:

- If discharge from the cooling towers could under any circumstances form a visible plume, then the current best available technology shall be utilized to disperse such a plume (or plumes).
- Modeling should be done to determine if the stacks for the subject project (as shown on the preliminary site plan) would be immediately below the turning point for VFR traffic. If this is the case, then the applicant/developer should consider re-aligning the stacks.

The Riverside County Environmental Health is requiring the following:

17. All wells, domestic water systems and sewage systems must be approved by this department prior to any construction. All industrial and hazardous or toxic chemicals must be cleared with the hazardous materials section prior to either the utilization or storage of such material at this project site. Any fuel (or petroleum storage facilities) must be approved by the Hazardous Materials Section prior to construction. All wastes must be stored and disposed of in a manner approved by this department. If there are any questions, call 760-863-7000.

Verizon is requiring the following:

18. The applicant/developer must contact the Verizon engineer for Verizon's requirements.

If you have any questions or need clarification on any of the conditions set forth, please contact me at 760-922-6130 ext. 246.

Cordially,

Jennifer Wellman
Planning Director

HAZARDOUS MATERIALS MANAGEMENT

Applicant's Comments to BEP II Preliminary Staff Assessment Hazardous Materials Management		
Number	**Comment**	**Page**
1	This section includes a statement that R-123 unavailability will be a consideration when selecting the refrigerant for the inlet air cooling system. CB II gas indicated the *"potential"* unavailability of R-123 will be a consideration. Additionally, we note R-123 will not support dry cooling technology for the inlet chilling systems as has been proposed by the Soil and Water Resource Staff.	4.4-1
2	In the section headed *Setting* the site is described as having an elevation of 390 feet above mean sea level. The elevation of the site is 335 feet above mean sea level.	4.4-3
3	The section headed *Small Quantities of Hazardous Materials* notes that hydroxyacetic acid and formic acid will be used to clean the heat recovery steam generators prior to startup. The EPC contractor for BEP used an EDTA based system for HRSG cleaning; CB II expects a similar method could be used for BEP II.	4.4-6
4	The section headed *Hydrochloric Acid* describes the use of hydrochloric acid for heat recovery steam generator cleaning prior to startup. As noted in item 3 above, CB II expects EDTA could be used as an alternative cleaning method for the BEP II HRSGs.	4.4-12
5	The section headed *Hydrochloric Acid* proposes the required use of temporary containment berms to limit the size of a spill of any chemical used to clean the HRSG to no more than 500 square feet. CB II considers this requirement to apply only to the undelivered chemicals in their as-delivered state and not to the chemicals after they have been diluted by the demineralized water in the HRSGs and water/steam system piping.	4.4-13

HAZARDOUS MATERIALS MANAGEMENT

CB II General Comments:

CB II suggests the conditions of certification from BEP (**HAZ-1** thru **HAZ-3**) be utilized for BEP II. The design of BEP II will be the same as BEP with the exception that the inlet chilling system for BEP II will be a chilled water system thereby reducing the stored quantities of anhydrous ammonia significantly. CB II is not aware of any LORS which would require such a significant change in the Commission's conditions. The BEP conditions are as follows:

HAZ-1 ***The project owner shall not use any hazardous material in reportable quantities, as specified in Title 40, C. F.R. Part 355, Subpart J, section 355.50, not listed in Appendix B unless approved in advance by the CPM.***

Verification: The project owner shall provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility in reportable quantities.

HAZ-2 ***The project owner shall provide a Risk Management Plan and a Process Safety Management Plan to the Riverside County Environmental Health Department and the CPM for review at the time the plans are first submitted to the U.S. Environmental Protection Agency (EPA) and the California Occupational Safety and Health Administration (Cal-OSHA). The project owner shall ensure that the final plan reflects all recommendations of the Riverside County Environmental Health Department and the CPM. A copy of the final plans, reflecting all comments, shall be provided to the Riverside County Environmental Health Department and the CPM once accepted by EPA and Cal-OSHA.***

Verification: At least sixty (60) days prior to the delivery of anhydrous ammonia to the facility, the project owner shall provide the final plans listed above to the CPM for approval.

HAZ-3 ***The project owner shall install an approved automatic fire suppression system.***

Verification: At least sixty (60) days prior to delivery of anhydrous ammonia to the facility, the project owner shall provide final design drawings and specification for the fire protection system approved by a registered Safety Engineer to the CPM for review and approval.

HAZARDOUS MATERIALS MANAGEMENT

HAZARDOUS MATERIALS

PROPOSED CONDITIONS OF CERTIFICATION

~~**HAZ-1** The project owner shall not use any hazardous materials not listed in Appendix C, below, or in greater quantities than those identified by chemical name in Appendix C, below, unless approved in advance by the CPM.~~

~~**Verification:** The project owner shall provide to the Compliance Project Manager (CPM), in the Annual Compliance Report, a list of hazardous materials contained at the facility.~~

CB II Comment:
CB II suggests **HAZ-1** from the BEP Conditions of Certification be used in place of the proposed condition. BEP and BEP II should have consistent reporting requirements.

~~**HAZ-2** The project owner shall concurrently provide a Business Plan and a Risk Management Plan (RMP) to the Certified Unified Program Authority – (CUPA) (Riverside County Hazardous Materials Division) and the CPM for review at the time the RMP is first submitted to the U.S. Environmental Protection Agency (EPA). After receiving comments from the CUPA, the EPA, and the CPM, the project owner shall reflect all recommendations in the final documents. Copies of the final Business Plan and RMP shall then be provided to the CUPA and EPA for information and to the CPM for approval.~~

~~**Verification:** At least 60 days prior to receiving any hazardous material on the site, the project owner shall provide a copy of a final Business Plan to the CPM for approval. At least sixty (60) days prior to delivery of aqueous ammonia to the site, the project owner shall provide the final RMP to the CUPA for information and to the CPM for approval.~~

CB II Comment:
CB II suggests **HAZ-2** from the BEP Conditions of Certification be used in place of the proposed condition. BEP and BEP II should have consistent reporting requirements.

HAZARDOUS MATERIALS MANAGEMENT

~~**HAZ-3** The project owner shall develop and implement a Safety Management Plan for delivery of aqueous ammonia. The plan shall include procedures, protective equipment requirements, training and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of aqueous ammonia with incompatible hazardous materials.~~

~~**Verification:** At least sixty (60) days prior to the delivery of aqueous ammonia to the facility, the project owner shall provide a safety management plan as described above to the CPM for review and approval.~~

CB II Comment:
With the adoption of **HAZ-2** from the BEP Conditions of Certification as recommended above, this proposed condition is redundant. The BEP **HAZ-2** condition address the Safety Management Plan. BEP and BEP 2 should have consistent reporting requirements.

~~**HAZ-4** The aqueous ammonia storage facility shall be designed to either the ASME Pressure Vessel Code and ANSI K61.6 or to API 620. In either case, the storage tank shall be protected by a secondary containment basin capable of holding 125% of the storage volume or the storage volume plus the volume associated with 24 hours of rain assuming the 25-year storm. The final design drawings and specifications for the ammonia storage tank and secondary containment basins shall be submitted to the CPM.~~

~~**Verification:** At least sixty (60) days prior to delivery of aqueous ammonia to the facility, the project owner shall submit final design drawings and specifications for the ammonia storage tank and secondary containment basin to the CPM for review and approval.~~

CB II Comment:
CB II is required to construct the aqueous ammonia storage facility to Codes and Standards which are in effect at the time the plant is designed and constructed. This is a requirement already. There is no need for Staff to propose any additional requirements which may conflict with the interpretations of these documents. CB II suggests this condition be deleted.

~~**HAZ-5** The project owner shall ensure that no flammable material is stored within 50 feet of the sulfuric acid tank.~~

~~**Verification:** At least sixty (60) days prior to receipt of sulfuric acid on-site, the Project Owner shall provide copies of the facility design drawings showing the location of the sulfuric acid storage tank and the location of any tanks, drums, or piping containing any flammable materials~~

HAZARDOUS MATERIALS MANAGEMENT

CB II Comment:

Staff has offered no justification for requiring different conditions for BEP II than the Commission imposed on BEP. CB II suggests this condition be deleted.

HAZ-6 ~~The project owner shall direct all vendors delivering aqueous ammonia to the site to use only tanker truck transport vehicles which meet or exceed the specifications of DOT Code MC-307~~

~~**Verification:** At least sixty (60) days prior to receipt of aqueous ammonia on site, the project owner shall submit copies of the notification letter to supply vendors indicating the transport vehicle specifications to the CPM for review and approval.~~

CB II Comment:
CB II does not want differing conditions between BEP and BEP II. CB II suggests this condition be deleted. This condition does not offer any specific requirements which the "trucking" industry is not already required to comply with and Staff has not offered any justification for requiring it.

HAZ-7 ~~The project owner shall direct all vendors delivering any hazardous material to the site to use only the route approved by the CPM (I-10 to Neighbors Blvd. to Hobsonway to Buck Blvd). The project owner shall obtain approval of the CPM if an alternate route is desired.~~

~~**Verification:** At least sixty (60) days prior to receipt of any hazardous materials on site, the project owner shall submit copies of the required transportation route limitation direction to the CPM for review and approval.~~

CB II Comment:
CB II does not want differing conditions between BEP and BEP II. CB II suggests this condition be deleted. This condition does not offer any specific requirements which are not addressed in the Process Safety Management Plan and Risk Management Plan. These documents are reviewed and approved by the US EPA, Cal-OSHA, Riverside County and CEC as part of the compliance requirements. The compliance process is best suited to impose limitations on shipment routes as routes and population centers may change/shift over time.

~~**HAZ-8** If anhydrous ammonia is chosen for use as the inlet chiller refrigerant, the project owner shall develop and implement an Ammonia Refrigeration Hazard Reduction Plan. This plan shall include procedures, protective equipment requirements, training and a checklist, as described in the August 2001 EPA Chemical Safety Alert. It shall also include a section describing all measures to be implemented to prevent the leaking of anhydrous ammonia from the refrigeration system. This plan shall also~~

~~incorporate recommended practices as found in ANSI Standards 15-2001 and 34-2001 and the ASHRAE Position Document on Ammonia As A Refrigerant (January 17, 2002). The applicant shall also include appropriate elements of the Cal-OSHA Process Safety Management standard (8 CCR section 5189).~~

~~**Verification:** At least sixty (60) days prior to the delivery of anhydrous ammonia to the facility, the project owner shall provide a safety management plan as described above to the CPM for review and approval.~~

CB II Comment:
CB II does not want differing conditions between BEP and BEP II. CB II suggests this condition be deleted. This condition does not offer any specific requirements which are not required to be addressed in the design of the plant or when preparing Process Safety Management Plan and Risk Management Plan. These documents are reviewed and approved by the US EPA, Cal-OSHA, Riverside County and CEC as part of the compliance requirements. It is best left up to the "Compliance" process to identify, review and incorporate the ever-changing requirements into plant design or operating procedures and practices.

~~**HAZ-9** When cleaning the HRSG, the project owner shall provide or contract to provide temporary berm(s) to contain any spill of any cleaning chemical to no more than 500 square feet in size.~~

~~**Verification:** At least sixty (60) days prior to delivery of the initial HRSG cleaning chemicals to the site, the project owner shall submit final design drawings and specifications for the temporary surface containment berm(s) to the CPM for review and approval.~~

CB II Comment:
CB II already has requirements to protect against spills during construction activities as part of LORS. The cleaning procedures are reviewed by the CBO, plan checkers, and CEC as part of the compliance process. CB II suggests this condition be deleted.

~~**HAZ-10** The project owner shall install an approved automatic fire suppression system on the ammonia refrigeration plant.~~

~~**Verification:** At least sixty (60) days prior to delivery of anhydrous ammonia to the facility, the project owner shall provide final design drawings and specification for the fire protection system approved by a registered Safety Engineer to the CPM for review and approval.~~

HAZARDOUS MATERIALS MANAGEMENT

CB II Comment:

This condition is the same as was approved for BEP. This condition is satisfied by incorporating the original BEP Conditions of Certification HAZ-3.

LAND USE

Applicant's Comments to BEP II Preliminary Staff Assessment Land Use		
Number	**Comment**	**Page**
1	In the section headed "Setting" Staff notes that the "expansion site is unimproved". CB II would like to clarify that over 200,000 cubic yards of excess soils from construction of the BEP evaporation ponds and retention basin have been placed on the expansion site.	4.5-6
2	In the section headed "Blythe Airport" the project's on site transmission towers are described as being approximately 145 feet tall if double circuited. CB II intends to use single circuit 500 kV towers on site; the single circuit 500 kV towers will be approximately 125 feet tall.	4.5-7
3	The section headed "City of Blythe Zoning Regulations" contains a discussion of zoning district height limitations and height variances. CB II notes the City of Blythe has issued a height variance for the HRSG stacks, brine concentrator, and 500 kV transmission towers. A copy of the City's height variance is included as attachment 1 to this section.	4.5-10
4	The section headed "City of Blythe Zoning Regulations" notes that the applicant has not yet filed applications with the City for the site plan. CB II notes that the City of Blythe issued on 23MAR04 Blythe Energy Project II – PRC Conditions and determined that the materials and data submitted for finalization of BEP II conditions are complete. A copy of the PRC conditions are provide as attachment 2 to this section.	4.5-10
5	The PSA asserts any permanent retirement of productive farmland by the WCOP must be mitigated to avoid impacts to agricultural lands and conflicts with Williamson Act contracts. The PSA therefore requires identification of all parcels intended to be fallowed before Staff can prepare the FSA. This is exactly the same issue Staff raised in BEP. In the BEP proceedings, the Commission adopted BEP's approach to impose a condition requiring the fallowing program to be consistent with the terms of Williamson Act contracts and to avoid Agricultural Preserves. The PSA does not distinguish between lands subject to Williamson Act Preserves and those subject to Williamson Act Contracts. CB II has repeatedly stated that it will accept the BEP condition of certification requiring avoiding lands subject to Williamson Act Preserves and avoiding any lands subject to Williamson Act Contract if the terms of the contract would conflict with the fallowing	4.5-15

	program. With respect to permanent retirement of lands, CB II has repeatedly indicated that it would mitigate any permanent retirement by placing an equivalent amount of agricultural land in a suitable land trust to be managed for the life of the project. Therefore, parcel by parcel identification is simply not necessary with such a condition. In either case, there will be no land use impact and no conflict. This approach was agreed to by Staff in BEP and should be acceptable for BEP II	

LAND-1 The project owner shall prepare a site development plan that complies with the applicable design criteria and performance standards for the General Industrial District set forth in the City of Blythe Zoning Ordinance. The site development plan must contain the following features:

- Setbacks (i.e. yard area requirements) for structures;
- Building elevations;
- Landscaping requirements;
- Temporary and permanent signs for project identification; permanent and construction phase signs);and
- Permanent parking lot design, showing the quantity and dimension of spaces.

Following preparation of the above site development plan, the project owner shall design and construct the project consistent with the applicable design criteria and performance standards for the General Industrial District set forth in the City of Blythe Zoning Ordinance.

Verification: At least 60 days prior to the start of construction, the project owner shall concurrently submit the site development plan to the CPM and the City of Blythe. The material submitted to the CPM must include documentation that the City of Blythe has been given the opportunity to review and comment on the plan and its compliance or conformance the above-referenced requirements.

~~Monthly Compliance Reports submitted to the CPM must contain a written statement from the CBO that the project is being constructed in compliance with the site development plan.~~

CB II Comment:

CB II accepts the proposed condition as modified. We do not agree that the owner should transmit CBO correspondence to the CPM via the Monthly Compliance Report.

LAND USE

LAND-2 The project owner shall provide descriptions of the final laydown/staging areas identified for project construction to the Director of the City of Blythe Development Services Department for review and comment, and the CPM for review and approval. The description shall include:

(a) Assessor's Parcel numbers;

(b) addresses;

(c) land use designations;

(d) zoning;

(e) site plan showing dimensions;

(f) owner's name and address (if leased); and,

(g) duration of lease (if leased); and, if a discretionary permit was required; (2) copies of all discretionary and/or administrative permits necessary for site use as laydown/staging areas.

Verification: The project owner shall provide the specified documents to the CPM at least 30 days prior to the start of any ground disturbance activities. [1/18/02]

CB II Comment:

CB II accepts the condition as written.

~~**LAND-3** The proposed Water Conservation Offset Program (WCOP) shall not include retirement or rotational fallowing of farmlands which violate any provision of a Williamson Act Contract.~~

~~**Verification:** At least 60 days prior to implementation of the WCOP, the project owner shall submit detailed information to the CPM regarding the Williamson Act Preserve and contract status of the parcels involved in the WCOP. If the program will fallow or retire any parcels under Williamson Act contract, the project owner shall provide documentation that such fallowing or retirement has been reviewed and approved by the Riverside County Agricultural Commissioner and the Riverside County Planning Department, and does not violate any provision of a Williamson Act contract. Any WCOP agreements that are altered or added to the program shall be submitted with the above documentation to the CPM at least 30 days prior to taking effect.~~

~~**LAND-4** If the WCOP involves permanent transfer of irrigation water previously used for productive irrigated farmland, the project owner shall mitigate at a one-to-one acre ratio for the conversion of productive farmland in the fulfillment of the WCOP through permanent retirement (time of the expected life of the project or greater) by implementing one or more of the following strategies:~~

~~1) a mitigation fee payment to a City of Blythe or Riverside County agricultural land trust or the American Farmland Trust consistent with a prepared Farmlands Mitigation Agreement. The payment amount shall be determined by contacting the local assessor's office to determine the assessed value for the acreage of productive agricultural land retired by the WCOP, or by a real estate appraiser selected by the project owner and approved by the CPM.~~

~~2) securing the acquisition of an agricultural easement for other farmland in the vicinity. Easements for irrigated farmland would be acquired based on the California Department of Conservation's Important Farmland Classification Map, but in no case shall be less than a 1:1 ratio.~~

~~**Verification:** Thirty (30) days prior to start of construction, the project owner shall provide in its monthly compliance reports a discussion of any land and/or easements purchased in the preceding month by the trust with the mitigation fee money provided, and the provisions to guarantee that the land managed by the trust will be farmed in perpetuity. This discussion must include the schedule for purchasing the same acreage of productive farmland as retired by the WCOP and/or easements within one year of start of construction as compensation for the acreage of productive farmland to be converted by the WCOP.~~

LAND-3 and **LAND-4** should be replaced with Condition of Certification **LAND-2** that was adopted by the Commission for the BEP to mitigate the same issues identified in the PSA. That Condition is as follows:

LAND-2 The proposed water conservation offset program shall not retire lands in the Palo Verde Valley (Priority 1 Lands) designated as Prime Farmlands or Farmlands of Statewide Importance as defined by the Department of Conservation, or lands included in a Williamson Act Preserve. Fallowing or retirement of farmlands shall not violate any provision of a Williamson Act Contract. Lands selected for retirement on the Mesa shall not include lands currently involved in active orchard crop productions.

Verification At least 60 days prior to implementation of the Water Conservation Offset Program (WCOP), the project owner shall submit detailed information to the CPM regarding the lands involved in the WCOP, including: 1_location and assessor parcel number, 2) Department of Conservation Important Farmland Program Classification, 3) crop and cultivation history, and 4) Williamson Act Preserve and contract status. If the program will fallow or retire any lands under the Williamson Act contract, the project owner shall provide documentation that such fallowing or retirement has been reviewed and approved by Riverside

County Planning Department and does not violate any provision of a Williamson Act contract. Any WCOP agreements that are altered or added to the program shall be submitted to the CPM at least 30 days prior to taking effect.

LAND-5*4* The project owner shall comply with the following Riverside County Airport Land Use Commission conditions related to land use:

a) Conveyance of an avigation easement to the Blythe Airport for all portions of the project including offsite power lines ~~and pipelines~~ within the Airport Influence Area.

b) Approval of project signs by the City of Blythe.

c) Documentation that the Project will not generate smoke or water vapor which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

Verification: At least 60 days prior to the start of construction of the power plant or any other facilities associated with the project, the project owner shall submit to the CPM:

a) a copy of the avigation easement showing proof of recordation with the Riverside County Recorder;

b) documentation of approval of project signs by the City of Blythe;

c) documentation that the Project will not generate smoke or water vapor which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

CB II Comment:

CB II accepts the proposed condition as modified.

LAND-*65* The project owner shall obtain the necessary approval(s) from the City and complete any lot merger or lot line adjustments necessary to ensure that the proposed project, including associated facilities and improvements, but excluding linear facilities, will be located on a single legal lot and owned by one entity. ~~That single lot shall include sufficient buffer areas to protect the health and safety of current or future occupants of adjacent lots~~ ***The BEP II facilities shall be constructed substantially as shown on the drawings submitted to and approved by the City of Blythe.*** It shall remain a single lot for the life of the power plant.

At least 30 days prior to the start of construction, the Project Owner shall provide the CPM with proof of completion of the above adjustments or satisfactory evidence that no such adjustments are necessary. Prior to submitting an application to the City, the project owner shall submit the proposed lot configuration to the CPM for review and approval.

LAND USE

CB II Comment:

CB II accepts the proposed condition as modified. The proposed language "sufficient buffer areas" is unnecessarily vague and the protection of "the health and safety of current or future occupants of adjacent lots" is addressed in the Public Health condtions.

ATTACHMENT 1

TO

LAND USE

COMMENTS

MINUTE ORDER
MARCH 23, 2004

ELYTHE ENERGY PROJECT II -PRC CONDITIONS. Assistant City Manager Hull reported that the Project Review Committee conditions that have been levied against the second power plant, Caithness Blythe II (CBII). Attached are the PRC conditions inside the property line that relate to the CBII and are necessary to the project's development within the City of Blythe. These conditions will be handled through the CEC/CBO process. No public comment.

Vice Mayor Thomas moved to approve the list of PRC conditions be forwarded to the California Energy Commission for inclusion in the Conditions for Certification for the Caithness Blythe II, project. Seconded by Councilman Soto. Unanimous Aye vote.

STATE OF CALIFORNIA)
: ss.
COUNTY OF RIVERSIDE)

I Virginia Rivera, City Clerk of the City of Blythe, do hereby certify that the above and foregoing is a full, true and correct copy of the Minute Order in my office.

IN WITNESS WHEREOF I herewith set by hand and affix the official Seal of the City of Blythe on the 26th day of March 2004.

Virginia Rivera, City Clerk

rlooper@spellc.com
tlcameron@msn.com

City of Blythe
Development Services Department
235 North Broadway
Blythe, California 92225

Jennifer Wellman
Planning Director
(760) 922-6130

February 19, 2004

Caithness Blythe II, LLC
565 Fifth Avenue, 28th & 29th Floors
New York, NY 10017

Robert Holt
The Holt Group
321 W. Hobsonway, Suite A
Blythe, CA 92225

Re: Finalization of PRC 2002-10 Letter of Conditions for Blythe Energy II - All conditions stipulated in this correspondence superseded conditions stipulated in all previous PRC 2002-10 letters.

Next Level of Submittal: To City Council for adoption of Blythe Energy II/City of Blythe Memorandum of Understanding with PRC letter as an attachment.

Dear Project Applicant and Agent:

The Project Review Committee, during the course of its' regularly scheduled meeting of February 11, 2004 has determined that materials and data submitted for finalization of the above-referenced project are complete with no further action required by the applicant at this time.

cc: Committee Members

The following topics, concerns, and requirements were discussed at the Project Review Committee (PRC) meeting.

The City of Blythe Building Department/CBO is requiring the following:

1. On site fire flow, fire department access and spacing of fire hydrants shall be installed as required by the most current State of California Fire Code. Any turn in the access or interior roads shall have not less than a forty (40') foot turning radius from curb to curb in order to adequately accommodate emergency vehicles. (Note: See also #26 concerning requirement for hydrant in Hobsonway right-of-way.) All emergency access routes will be connected via on site roads and will not be dead-ended. All onsite emergency access roads will be constructed of an all-weather material. BEP II emergency access roads have been identified on the revised site plan.

2. Owner shall submit a Construction Fire Protection Plan to the City of Blythe for review and approval 60 days prior to flammable materials being placed on the site of the (BEP II). Use of the BEP facilities for temporary fire water supply shall be acceptable during construction of BEP II as approved by the CEC and a Fire Assessment Engineer.

3. A detailed site grading and drainage plan will be submitted to the City for review and approval sixty (60) days prior to commencing any grading activities. The site grading & drainage plan shall include pad elevations, drainage courses and facilities, property corners, and attached soils report including soil compaction testing and results. The storm water runoff calculations shall be provided with the grading and drainage plan and include runoff from off site areas impacting the BEP II site, and account for the drainage improvements along Riverside Drive and Buck Blvd. which have been constructed as part of the BEP.

4. The installation of any septic tanks and/or leach lines must be approved and permitted by the Riverside County Environmental Health Department.

5. Plans, specifications and engineering calculations must be prepared and designed by an appropriately licensed engineer or architect in the State of California in accordance with California Building Codes and requirements.

6. A lighted directory board acceptable to the Fire Marshal/CBO shall be installed adjacent to the primary and secondary access into the project depicting emergency reporting locations, roads and hydrant locations. Street addresses must be displayed at the main entrance and be plainly visible from the corresponding right-of-way.

7. The applicant/developer is required to provide general indemnity normally afforded city governments as it relates to the construction of the subject project within the Administrative Sections of the California Building Code.

8. Caithness Blythe II (CB II) and Blythe Energy shall execute, notarize and record with the County of Riverside a covenant which restricts either party from a sale or reassignment of properties which impact or restrict grading, drainage, shared utilities, or emergency vehicle access between the BEP and BEP II sites for the life of the projects. A notarized original of said agreement shall be provided to the City of Blythe.

9. Design and construction of the subject project shall be in compliance with all applicable Title 24, Parts 1-12 California Code and Regulations.

The Public Works Department is requiring the following:

10. Hydrology calculations must be provided to properly size the required retention basin for all tributary run-off whether this basin is ultimately located on the property of the BEP or proposed BEP II project. A storm water retention/disposal plan for the entire project must be submitted to the City for approval.

The Planning Department is requiring the following:

11. Exterior colors for each building and all related infra- or superstructure must be accurately presented on a color rendering (or renderings) and must be approved by the City of Blythe. Such approvals should be obtained prior to the ordering of any materials for the project that would be affected by this requirement.

12. Lighting for the plant shall not shine onto other properties or onto the adjacent public rights-of-way. In addition, all on site exterior lighting shall conform to generally accepted practices of preventing light pollution and impacting the night skyline by providing appropriate shielding and down casting of lighting while providing the required exit path illumination.

13. Any signage to be utilized for this project must be approved by the Development Services Department.

14. Separate parking plans must be approved by the Development Services Department that adequately address the projects on-site parking needs both: a) during the construction phase of the project; and, b) on an on-going basis once the plant is completed. All permanent parking must be hard surfaced and meet all applicable City standard and approvals; a temporary parking plan (including the type of surfacing to be utilized) must be approved by the City and must be maintained at all times in a dust free condition.

The Police Department is requiring the following:

15. Employment opportunities for the BEP II project shall be noticed at a common location outside the main entrance at the lighted display board.

City Administration is requiring the following:

16. In the interest of air traffic safety:

- If discharge from the cooling towers could under any circumstances form a visible plume, then the current best available technology shall be utilized to disperse such a plume (or plumes).

- Modeling should be done to determine if the stacks for the subject project (as shown on the preliminary site plan) would be immediately below the turning point for VFR traffic. If this is the case, then the applicant/developer should consider re-aligning the stacks.

The Riverside County Environmental Health is requiring the following:

17. All wells, domestic water systems and sewage systems must be approved by this department prior to any construction. All industrial and hazardous or toxic chemicals must be cleared with the hazardous materials section prior to either the utilization or storage of such material at this project site. Any fuel (or petroleum storage facilities) must be approved by the Hazardous Materials Section prior to construction. All wastes must be stored and disposed of in a manner approved by this department. If there are any questions, call 760-863-7000.

Verizon is requiring the following:

18. The applicant/developer must contact the Verizon engineer for Verizon's requirements.

If you have any questions or need clarification on any of the conditions set forth, please contact me at 760-922-6130 ext. 246.

Cordially,

Jennifer Wellman
Planning Director

The Holt Group

James G. Holt, P.E.
Robert K. Holt, P.E.

Engineering ■ Planning ■ Surveying

February 5, 2004

Ms. Jennifer Wellman, Planning Director
City of Blythe
235 N Broadway
Blythe, CA 92225

RE: Blythe Energy Project Phase II Application for Certification
CEC Docket No. 02-AFC-1 CVL and Land Issues
THG Project No. 632.008

Dear Jennifer:

In accordance with our conversation on January 22, 2004, please consider this correspondence as a formal request for the City of Blythe to grant a height variance to accommodate various components of the above reference project. These components include three 125 ft. high transmission towers, two 130 ft. high exhaust stacks and one 99 ft. high brine concentrator. The proposed locations of the subject components are shown on the attached BEP II Site Plan.

It is our understanding that, similar to BEP I, findings for a variance could be made given that the project consists of an industrial use in an industrial zone and the towers, stacks and concentrator are uninhabited equipment, not buildings, that are required to facilitate the proper operation of the power generating facility.

Should any questions arise concerning this matter, please contact us. Your expeditious handling of this matter is much appreciated.

Sincerely,

Robert K. Holt, P.E.

cc: Bob Looper
Tom Cameron
Bob Gavahan

321 W. Hobsonway ■ Suite A ■ Blythe, CA 92225 ■ 760-922-4658 ■ Fax 760-922-4660
1561 S. 4th Street ■ El Centro, CA 92243 ■ 760-337-3883 ■ Fax 760-337-5997
425 E. Main Street ■ P. O. Box 2532 ■ Quartzsite, AZ 85346 ■ 928-927-8699 ■ Fax 928-927-8695

ZONING ADMINISTRATOR HEARING: March 8, 2004

STAFF REPORT

TITLE: ZONE VARIANCE 2004-02

PROJECT: BLYTHE ENERGY PROJECT II

APPLICANT: Robert K. Holt, P.E.
Senior Resident Engineer
The Blythe Energy Project II
321 West Hobsonway Ste A
Blythe CA 92225

PROJECT LOCATION: 13770 WEST HOBSONWAY

SPECIFIC REQUEST: The applicant is requesting approval of a variance to allow the construction of a) three (3) 125 ft. high transmission towers; b) two (2) 130 ft. high exhaust stacks; and c) one (1) 99 ft. high brine concentrator. Each of the "structures" is intended to be an unmanned facility and is appurtenant to the installation of Blythe Energy II which is an allowed use in the Service Industrial Zone.

GENERAL PLAN: I-H (Heavy Industrial)

ZONING DESIGNATION: I-G (General Industrial)

SURROUNDING AREA ZONING AND LAND USE:

NORTH: Riverside County - W-2-10 (Controlled Development Area) - Vacant

SOUTH: Riverside County - W-2-5 (Controlled Development Area), City of Blythe - I-S (Service Industrial) - Vacant, Interstate Highway 10

EAST: City of Blythe - I-G (General Industrial), A (Agricultural) - Blythe Energy Project, vacant agricultural lands

WEST: Riverside County - W-2-5 and W-2-10 (Controlled Development Area), M-H (Manufacturing - Heavy) - Blythe Municipal Airport

REQUIRED VARIANCE FINDINGS: In order for the Zoning Administrator to approve a Zone Variance request the following findings must first be made:

A Because of special circumstances applicable to a property, including size, shape, topography, location or surroundings, strict application of a regulation contained in this title deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification;

B. The conditions under which the variance is to be granted will assure that the authorized modification of regulations shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated;

C. The variance does not authorize a use or activity which is not otherwise expressly authorized by the zone regulation governing the property. (Ord. 595 §7.03(A), 1982).

PROJECT SPECIFIC FINDINGS FOR ZONE VARIANCE 2003-01:

A. As previously indicated, the transmission towers, the exhaust stacks and the brine concentrator are all necessary components of and appurtenant to the operation of the "proposed" Blythe Energy Project II which is an allowed use in the Service Industrial Zone.

B. The conditions under which the variance is to be granted will assure that the authorized modification of regulations shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated because there exist other, higher structures in the immediate vicinity on properties with identical zoning and in similar use.

C. The granting of the variance does not authorize an otherwise unauthorized use or activity within or upon the (subject) property.

ENVIRONMENTAL: Pursuant to Section 15305, Class 5 (Minor Alterations in Land Use Limitations) of CEQA Guidelines this project is Categorically Exempt.

STAFF ANALYSIS: Granting of the variance is simply a step in the completion of the necessary paperwork for the Blythe Energy Project II. Removal of, or reduction in the height of the transmission towers, exhaust stacks or brine concentrator is not feasible due to the fact that they are necessary components in the normal operation of the "proposed" facility.

DETERMINATION: It is the determination of the Zoning Administrator that Variance 2004-02 is herein granted with no further action required.

ATTACHMENTS:

1. Zone Variance Request

Approved:

Jennifer Wellman
Planning Director

3-8-04
Date

Noise and Vibration

Applicant's Comments to BEP II Preliminary Staff Assessment Noise and Vibration		
Number	**Comment**	**Page**
1	In the section headed "Project Background" reference is made to "the auxiliary boiler". CB II notes an auxiliary boiler is not included with the permanent plant equipment (a temporary auxiliary boiler may be used during construction as part of the HRSG chemical cleaning process).	4.6-5
2	In the section headed "Power Plant Site" it is stated that *"The nearest sensitive use is a home at 16531 Hobsonway, about 2,728 feet from the site boundary."* Now that BEP is constructed, CB II has collected new background noise data. This was accomplished when BEP is not in operation during the months of December 2003 and January 2004. CB II notes that for the BEP AFC environmental survey, the background data were not taken at the nearest residence. Rather it was taken at the repair facility across from the BEP site on Hobsonway. The nearest residence is approximately 1000 feet further away from BEP. Therefore, the noise analysis of BEP's impact at the nearest resident (16531 Hobsonway), and BEP II's, is very conservative. We also note the nearest residence is closer to the I-10 highway, therefore the background noise levels at the nearest residence are expected to be somewhat higher than the original test data (16275 Hobsonway). Lastly, the noise test results from the testing performed by the BEP EPC Contractor are available. These have been used as well to update the analysis previously performed. CB II has evaluated the recent ambient noise survey data and the BEP noise test results and has calculated revised predicted cumulative levels at the nearest residence. CB II's analysis can be found in the attached Noise Report.	4.6-5
3	The section headed "Existing Noise Levels" contains the statement *"The approved BEP I (99-AFC-8), once placed in operation"*. We would like to clarify BEP is in operation.	4.6-6

Noise and Vibration

4	In the section headed "Steam Blows" *it is stated that "According to the Applicant a low-pressure high velocity cleaning method would be employed..."* CB II submitted information on low-pressure steam blows as part of the Data Request responses; however, CB II did not commit to using low-pressure methods.	4.6-8
5	The section headed "Linear Facilities" includes the statement *"Trenching for the proposed pipeline would involve use of diesel powered equipment. Noise produced by this equipment could be annoying to nearby residents."* and recommends Condition of Certification NOISE-8. While it is correct that trenching for the gas pipeline will involve diesel powered equipment, the construction of the gas pipeline would be a very small part of the overall construction project (several hundred feet of trench for a 12" pipe and a few days of construction activity) and therefore does not merit a separate condition of certification. Staff should delete this condition.	4.6-9
7	Comments to Noise & Vibration Table 3 – Summary of Predicted Operational Noise Levels. CB II agrees the values contained in Table 3 correctly summarize the predicted levels based on information that has been supplied by CB II. We note, however, that the *Ambient* level contained in Table 3 was measured at a location both closer to the proposed BEP II site and farther from I-10 than the actual nearest sensitive receptor. We have measured ambient noise levels at the nearest sensitive receptor and they are higher than the level used in Table 3. Also, the contributions from BEP and BEP II at the sensitive receptor are predicted from measurements made at a facility similar to BEP. BEP is now operational and the EPC contractor far field (at 400 feet from the BEP sound envelope) sound level measurements have been provided to CB II. The measured far field levels are lower than the levels used by Staff to determine BEP II compliance conditions. We believe that the contributions from BEP should be based on measured levels from BEP and predicted levels for BEP II should also be based on measured levels from BEP, not on levels measured at the similar plant as was done for the AFC. We have prepared a Noise Report,	4.6-10

	attached, that provides revised predicted levels at the nearest sensitive receptor to BEP II.	

8	The text preceding Table 4 states a condition of certification "would require that the noise level produced by BEP II plant in operation not exceed 47 dBA L_{eq} at the nearest residence. Table 4 – *Conditioned Plant Operational Noise Levels and Resulting Ambient Noise Levels* provides a predicted cumulative level at the sensitive receptor based on BEP II contributing 47 dBA. As stated in the attached Noise Report we believe that the noise level produced by the BEP II plant in operation should be limited to a maximum of 48.6 dB(A) at the nearest residence. A level of 48.6 dB(A) from BEP II would result in a cumulative level (ambient, plus BEP, plus BEP II) at the nearest residence of approximately 51 dB(A). This is less than 5 dB(A) above existing ambient levels. Staff uses notes that an increase in background noise levels up to 5 dBA in a rural setting is insignificant.	4.6-104.6-11

NOISE AND VIBRATION

PROPOSED CONDITIONS OF CERTIFICATION

NOISE-1 At least 15 days prior to the start of ***project related*** ground disturbance, the project owner shall notify by mail all residents within one-half mile of the site ~~and the linear facilities~~ of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project. If the telephone is not staffed 24 hours per day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction in a manner visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year.

~~Verification:~~Prior to ground disturbance, the project owner shall transmit to the CPM a statement, signed by the project manager, stating that the above notification has been performed, and describing the method of that notification, verifying that the telephone number has been established and posted at the site, and giving that telephone number.

Noise and Vibration

CB II Comment:

CB II can accept this condition as highlighted. We note there are no offsite linear facilities. However, we suggest that this condition be replaced by NOISE-1 from the BEP Conditions to maintain consistency between the projects.

NOISE-2 Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints. The project owner or authorized agent shall:

- Use the Noise Complaint Resolution Form (below), or functionally equivalent procedure acceptable to the CPM, to document and respond to each noise complaint;
- Attempt to contact the person(s) making the noise complaint within 24 hours;
- Conduct an investigation to determine the source of noise related to the complaint;
- If the noise is project related, take all feasible measures to reduce the noise at its source; and
- Submit a report documenting the complaint and the actions taken. The report shall include: a complaint summary, including final results of noise reduction efforts; and if obtainable, a signed statement by the complainant stating that the noise problem is resolved to the complainant's satisfaction.

Verification: Within 5 business days of receiving a noise complaint, the project owner shall file with the City of Blythe Development Services Department, the Riverside County Planning Department, and the CPM a copy of the Noise Complaint Resolution Form, documenting the resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a 3-business day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.

CB II Comment:

CB II suggests this condition be replaced by NOISE-2 from the BEP conditions of certification to maintain consistency between the projects. We do not see any need to change the filing or resolution time frames from the 30 days previously approved by the CEC for BEP. There were **NO** complaints filed for the BEP Project.

NOISE-3 The project owner shall submit to the CPM for review and approval an employee construction noise exposure control program. The noise control program shall be used to reduce employee exposure to high noise

levels during construction and also to comply with applicable OSHA and Cal-OSHA standards.

Verification: At least 30 days prior to the start of project related ground disturbance, the project owner shall submit to the CPM the noise control program. The project owner shall make the program available to Cal-OSHA upon request.

CB II Comment:

CB II accepts this condition as proposed as it is the same as was previously approved for BEP.

NOISE-4 The project owner shall implement a low-pressure steam blow procedure in accordance with the requirements of the CPM.

Verification: At least 15 days prior to any low-pressure continuous steam blow, the project owner shall submit to the CPM information describing the process, including the noise levels expected and the projected time schedule for execution of the process.

CB II Comment:

CB II suggests this condition be replaced by NOISE-4 from the BEP conditions of certification. There is no need to impose another standard on the construction of BEP II. There were **NO** complaints during the steam blow activities for BEP and therefore no reason for Staff to require a different standard.

NOISE-5 Prior to the first steam blow(s), the project owner shall notify all residents or business owners within one mile of the site of the planned steam blow activity, and shall make the notification available to other area residents in an appropriate manner.

The notification may be in the form of letters to the area residences, telephone calls, fliers or other effective means. The notification shall include a description of the purpose and nature of the steam blow(s), the proposed schedule, the expected sound levels, and the explanation that it is a one-time operation and not a part of normal plant operations.

Verification: The project owner shall notify residents and businesses at least 15 days prior to the first steam blow(s). Within five (5) days of notifying these entities, the project owner shall send a letter to the CPM confirming that they have been notified of the planned steam blow activities, including a description of the method(s) of that notification.

CB II Comment:

CB II suggests this condition be replaced by NOISE-5 from the BEP conditions of certification. As indicated in NOISE-4, there is no need to implement any other condition than that which was approved for BEP.

NOISE-6 The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the noise level produced by operation of the project will not exceed an hourly average noise level (L_{eq}) of more than ~~47~~***8.6*** dBA, measured at any residence.

No new pure tone components may be introduced. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints. Steam relief valves shall be adequately muffled to preclude noise that draws legitimate complaints.

A. Within 30 days of the project first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey at or near the residence at 16531 Hobsonway. The noise survey shall also include short-term measurement of one-third octave band sound pressure levels to ensure that no new pure-tone noise components have been introduced.

B. If the results from the noise survey indicate that the noise level due to the plant operations exceeds the noise standard listed above for any given hour during the 25-hour period, mitigation measures shall be implemented to reduce noise to a level of compliance with these limits.

C. If the results from the noise survey indicates that pure tones are present, mitigation measures shall be implemented to eliminate the pure tones.

Verification: Within 30 days after completing the community noise survey, the project owner shall submit a summary report of the survey to the City of Blythe Development Services Department, to the Riverside County Planning Department, and to the CPM. Included in the post-construction survey report will be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. Within 30 days of completion of installation of these measures, the project owner shall submit to the CPM a summary report of a new noise survey, performed as described above and showing compliance with this condition.

Noise and Vibration

CB II Comment:

CB II accepts the condition as modified. Measured ambient noise levels at the nearest residence and BEP measured far field levels indicate that a level of 48.6 dB(A) L_{eq} at the nearest residence due to BEP II will result in a cumulative level that is not more than 5 dB(A) greater than existing ambient. Staff has concluded that a potential for a significant noise impact exists where the noise of the project plus the background exceeds the background by 5 dBA L_{90}. A level of 48.6 dB(A) Leq produced by BEP II at the nearest residence will result in the 5 dB(A) limit being satisfied. Also we note CEC has arbitrarily set the standard for a "significant impact" at a 5 db "cumulative" increase for both BEP and BEP II above the lowest one-hour L90. We note staff has not provided cited LORs which require this standard be met. We also note there are three residences within 1 mile radius of BEP II.

NOISE-7 Following the project first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct an occupational noise survey to identify the noise hazardous areas in the facility.

The survey shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations, sections 5095-5099 (Article 105) and Title 29, Code of Federal Regulations, section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure.

The project owner shall prepare a report of the survey results and, if necessary, identify proposed measures that will be employed to comply with the applicable California and federal regulations.

Verification: Within 30 days after completing the survey, the project owner shall submit the noise survey report to the CPM. The project owner shall make the report available to OSHA and Cal-OSHA upon request.

CB II Comment:

CB II can accept this condition as proposed. However, we suggest this condition be replaced by NOISE-7 from the BEP conditions of certification previously approved by CEC. We see no reason to change or modify the BEP condition of certification.

NOISE-8 Noisy construction or demolition work (typically that involving the use of powered equipment or impact tools) shall be restricted to the hours of 6:00 a.m. to 6:00 p.m.

Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.

Verification: The project owner shall transmit to the CPM in the first Monthly Construction Report a statement acknowledging that the above restrictions will be observed throughout the construction of the project.

CB II Comment:

CB II suggests that this condition be replaced by NOISE-8 from the BEP conditions of certification previously approved by the CEC. We see no reasons to justify modifying this condition. There were **NO** complaints during the construction of BEP. Further, we note the condition restricts noisy construction work and states that noisy construction work typically involves the use of powered equipment or impact tools. While that is generally true, not all work involving the use of powered equipment or impact tools is noisy construction or demolition work and a condition limiting use of powered equipment to the hours stated is not acceptable. Also, we are not sure what Staff is trying to accomplish with respect to requiring trucks be "operated in accordance with posted speed limits", "be equipped with adequate mufflers", and use of "engine exhaust brake"; these are already requirements of LORS.

ATTACHMENT 1

TO

NOISE AND VIBRATION

COMMENTS

PEC

PROJECT NOISE REPORT

BLYTHE ENERGY PHASE II PROJECT
BLYTHE, CALIFORNIA

April 2004

PREPARED FOR:

CAITHNESS BLYTHE II, LLC

PREPARED BY:

POWER ENGINEERS COLLABORATIVE, LLC
6682 West Greenfield Avenue
West Allis, WI 53214
414.475.4550

1. INTRODUCTION

Caithness Blythe II (CB II) has applied to the California Energy Commission for certification of a 520 MW combined cycle power plant, Blythe Energy Project Phase II (BEP II). CB II has submitted to the CEC information on predicted noise levels resulting from operation of Blythe II. These predicted levels were submitted in the BEP II Application for Certification, July 2002, and clarified through responses to Energy Commission Data Requests.

Energy Commission Staff issued the BEP II Preliminary Staff Assessment (PSA) in November 2003. The Blythe II PSA contained an analysis that identified and examined the likely noise impacts from construction and operation of BEP II. The PSA used information provided by CB II for the analysis of the impacts from BEP II. The PSA contains recommended Conditions of Certification for BEP II; the recommended operational Conditions are based on concurrent operation of BEP II and the completed Blythe Energy Project (BEP) facility which entered commercial operation in December 2003.

The intent of this report is to provide revised predicted noise levels based on noise measurements taken with the BEP facility operating and recent ambient levels taken at the nearest sensitive receptor. Additionally, comments to selected BEP II Conditions of Certification are provided.

2. BACKGROUND

2.1. FACILITIES

The proposed BEP II is a nominally rated 520 MW combined cycle power plant. BEP II will be located adjacent to the completed BEP. BEP II essentially duplicates BEP and consists of two Siemens V84.3A(2) 170 MW combustion turbine generators (CTGs), one 180 MW steam turbine generator (STG), and supporting equipment. BEP II requires no off-site linear facilities and will interconnect on site with existing BEP transmission and fuel gas facilities.

BEP II is located entirely within the BEP site boundary. The BEP II power island is located approximately 950 feet south and 800 feet west of the BEP power island. BEP II will construct and operate two groundwater pumping wells for its water supply and will construct one additional evaporation pond (with two cells) south of the BEP II power island to accommodate the project's wastewater discharge.

BEP II will essentially be a broadband steady continuous noise source while operating. The primary noise sources for BEP II will be the combustion turbine generators, steam turbine generator, and cooling towers. Other noise sources will be the feedwater pump area, heat recovery steam generators (HRSGs), fuel gas filtering systems, pipe bridges, circulating water pumps, workshop and storage building, control room, transformers, power control centers, inlet chilling cooling tower and mechanical equipment building, and fuel gas pressure reducing area. An acoustically treated turbine hall will be provided to attenuate noise produced by the combustion and steam turbine generators. The HRSGs will be provided with thermally insulated casings and inlet ducts; the HRSGs will not be provided with exhaust stack silencers or stack insulation. The plant equipment in general will be provided with standard power plant noise abatement measures.

No strong tonal noises are expected to be generated during operation of BEP II. Noise levels generated during plant start-up and shutdown may be higher than levels during steady state operation. The potentially significant noise sources during startup would be the start-up steam system and high pressure steam bypass station.

2.2. RECENT SOUND LEVEL MEASUREMENTS

Post construction sound level measurements for the BEP have been taken by Siemens Westinghouse Power Corporation (SWPC) - the BEP contractor, and CB II.

2.2.1. Siemens Westinghouse Far Field Sound Level Testing

SWPC performed far field compliance sound level testing in March 2003. Contractor far field compliance sound tests are performed consistent with the requirements of industry standards such as ANSI B133.8 and ISO 6190. The SWPC far field compliance testing was performed with the BEP facility at steady state base load. The BEP inlet chilling system was not in operation at the time of the SWPC compliance testing.

A summary of the SWPC far field sound level test results are presented in Table 1. Figure 1 presents the measurement locations for the Table 1 sound levels. A review of Table 1 indicates that the distance corrected BEP sound levels at 400 feet from the plant envelope range from 54.0 to 61.5 dB(A) and the logarithmic average is 57.7 dB(A). The maximum measured level of 61.5 dB(A) will be used for the contributions from BEP and BEP II in calculations of predicted far field levels with both plants operating.

The far field sound levels measured by SWPC are lower than the levels used by CB II in the original predictions of expected levels at the nearest sensitive receptor. CB II used a predicted noise level of 66 dB(A) at a distance of 400 feet for previous calculations. CEC Staff used the values provided by CB II for the Preliminary Staff Assessment. SWPC compliance measurement levels are also lower than the levels used by CEC Staff for their far field analyses, conclusions, and proposed Conditions of Certification. CB II will use the BEP SWPC far field compliance measurement levels in developing revised predicted cumulative levels at the sensitive receptor with both BEP and BEP II operating; this will result in lower predicted levels than previously provided by CB II and calculated by Staff.

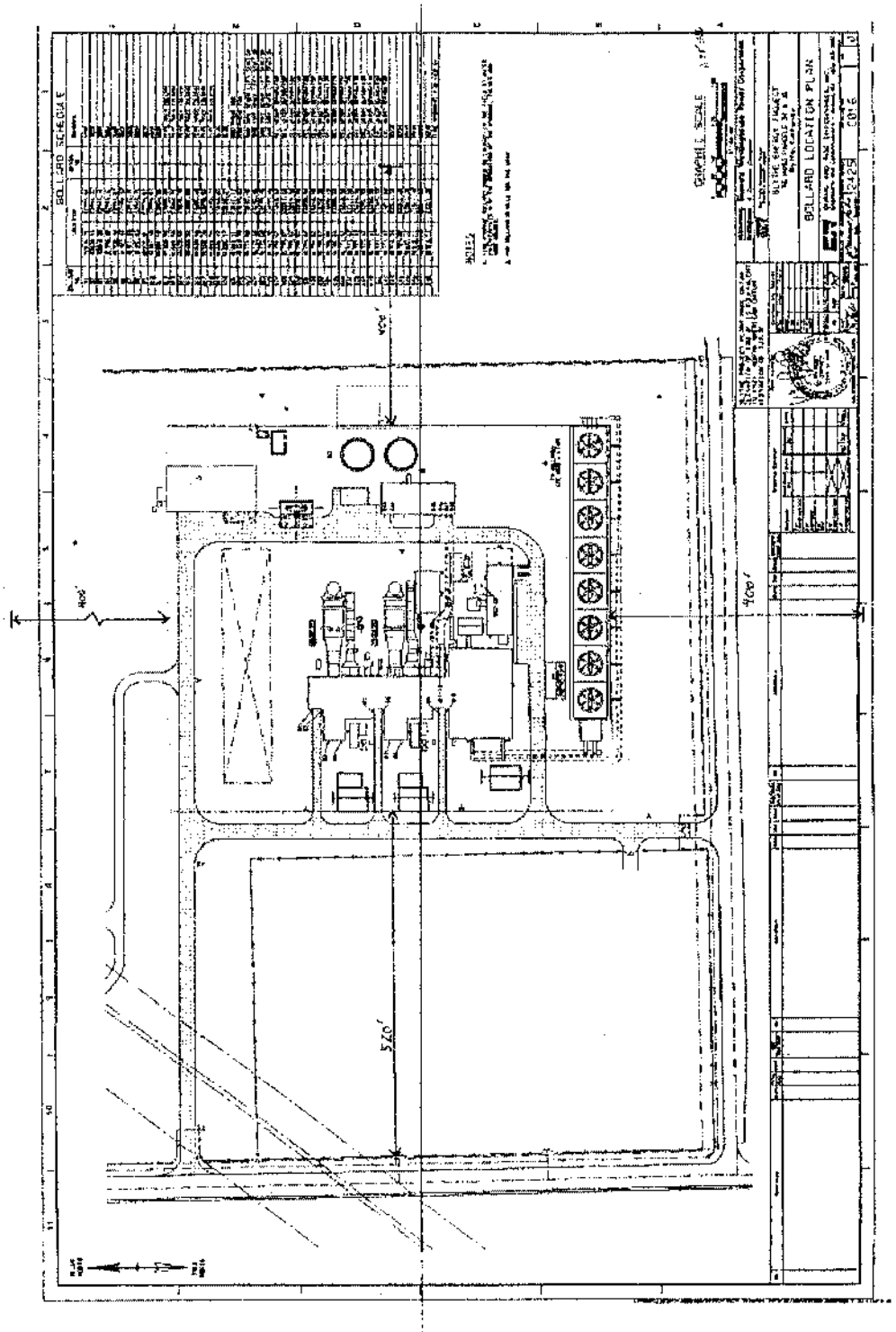
Table1

Summary of Blythe Energy Project Far Field Sound Level Test Results

Position[1]	Time of Measurement	Measured Sound Level, dB(A)	Actual Distance From Source Envelope, feet	Distance Correction to 400 feet, dB(A)	Distance Corrected Sound Level, dB(A)
North	08:05 a.m.	61.5	400	0.0	61.5
East	08:12 a.m.	52.0	520	2.3	54.3
South	07:50 a.m.	54.0	400	0.0	54.0
West	07:55 a.m.	56.2	400	0.0	56.2
				Distance Corrected Average Sound Level, dB(A)	57.7
				Correction for Elimination of Measurement Position, dB(A)	0.0
				Instrumentation Tolerance Correction, dB(A)	1.0
				Measurement Uncertainties Correction, dB(A)	2.0
				Final Average Corrected Sound Level, dB(A)	54.7
				Rounded Final Average Corrected Sound Level, dB(A)	55

Position identified as true geographic. Please note that identified Plant north is rotated 180 degrees from true geographic North (see Far Field Figure 1).

Figure 1
Blythe Energy Project Far Field Measurement Locations



2.2.2. CB II Ambient Noise Level Measurements

CB II measured ambient noise levels for two recent periods. The ambient noise levels were measured at the home at 16531 West Hobsonway; this is the nearest sensitive receptor to BEP II. For the period from 19DEC03 to 23DEC03 the BEP plant was operating for a portion of the time; for the period from 19JAN03 to 21JAN03 the BEP plant was not operating.

The results of the ambient noise level monitoring are presented in Tables 2 and 3. Ambient noise levels for A-weighted L_{eq}, L_{10}, L_{50}, and L_{90} are provided. Table 2, covering the period from 19DEC03 to 23DEC03, is the period for which BEP was in operation for a portion of the time.

The lowest average L_{90} level for any consecutive four hour period monitored by CB II is 46 dB(A); this will be used as the ambient noise level at the nearest sensitive receptor. This ambient level is slightly higher than the level used previously by CB II in predicting noise levels with the BEP or BEP II facilities operating. This is not an unexpected result. At the time the BEP II Application for Certification (AFC) was prepared, construction was underway for BEP; CB II utilized, therefore, the noise data obtained at 16275 West Hobsonway in November, 1999, as part of the environmental study for the BEP AFC. It has since been determined that the location used for BEP is not a place of residence and therefore not the closest resident. The nearest sensitive receptor is the home at 16531 West Hobsonway and is closer to I-10 than the commercial building. Traffic on I-10 is the dominant background noise source in the area; ambient levels would be expected to be higher at a location closer to I-10.

Review of Tables 2 and 3 shows there was little difference in the measured levels at the sensitive receptor for periods when BEP was operating and when it was not.

Table 2

Ambient Noise Levels at 16531 West Hobsonway, December 2003

Time of Day	Noise Level, dB(A)			
	L_{eq}	L_{10}	L_{50}	L_{90}
19-Dec-03				
1700	52	53	52	49
1800	52	54	52	49
1900	52	54	52	50
2000	52	53	52	49
2100	52	54	52	49
2200	51	53	52	48
2300	52	53	52	49
2400	52	54	52	49
20-Dec-03				
0100	51	53	51	48
0200	52	54	52	49
0300	52	53	52	49
0400	51	53	51	48
0500	51	53	51	48
0600	52	54	52	49
0700	52	53	52	48
0800	52	52	51	48
0900	51	52	51	47
1000	51	52	51	47
1100	51	53	52	48
1200	51	53	52	47
1300	51	53	52	48
1400	51	53	52	47
1500	51	53	52	48
1600	51	53	51	48
1700	51	53	51	48
1800	52	53	52	49
1900	52	53	51	48
2000	51	52	51	48
2100	51	52	51	47
2200	51	52	51	47
2300	50	52	51	46
2400	50	51	51	46
21-Dec-03				
0100	50	52	51	46
0200	50	52	51	46
0300	50	52	51	46
0400	50	52	51	46
0500	50	52	51	47

Table 2 (continued)

Time of Day	Noise Level, dB(A)			
	L_{eq}	L_{10}	L_{50}	L_{90}
21-Dec-03				
0600	50	52	51	47
0700	50	52	51	47
0800	51	52	51	47
0900	51	52	51	47
1000	51	53	52	47
1100	51	53	52	47
1200	51	53	52	47
1300	52	53	52	48
1400	51	53	52	47
1500	51	53	52	48
1600	51	53	51	48
1700	51	52	51	47
1800	51	52	51	48
1900	51	52	51	48
2000	51	53	51	48
2100	51	52	51	48
2200	51	53	51	48
2300	51	53	51	48
2400	51	52	51	47
22-Dec-03				
0100	51	52	51	47
0200	50	52	51	47
0300	50	52	51	47
0400	50	52	51	47
0500	51	52	51	47
0600	51	53	51	48
0700	51	52	51	47
0800	51	52	51	47
0900	51	52	51	47
1000	51	52	51	47
1100	51	52	52	47
1200	51	53	52	47
1300	52	54	52	48
1400	52	53	52	47
1500	51	52	51	47
1600	51	52	51	47
1700	51	53	51	48
1800	51	52	51	47
1900	51	52	51	47
2000	51	52	51	47
2100	51	52	51	47

Table 2 (continued)

Time of Day	Noise Level, dB(A)			
	L_{eq}	L_{10}	L_{50}	L_{90}
22-Dec-03				
2200	51	53	51	48
2300	51	53	51	48
2400	51	52	51	47
23-Dec-03				
0100	51	52	51	47
0200	51	52	51	48
0300	51	52	51	47
0400	51	52	51	47
0500	51	52	51	48
0600	51	52	51	48
0700	52	53	51	48
0800	51	52	51	47
0900	51	52	51	47
1000	51	52	51	47
1100	51	52	51	47
1200	51	52	51	47
1300	51	52	51	47
1400	51	53	51	47

Notes:

1.) Shaded cells indicate periods when the Blythe Energy facility was operating.

2.) A plot of Blythe Energy plant output vs time for the monitoring period can be found in Appendix A.

3.) Temperature and wind conditions for the Blythe area during the monitoring period can be found in Appendix B.

Table 3

Ambient Noise Levels at 16531 West Hobsonway, January 2004

Time of Day	Noise Level, dB(A)			
	L_{eq}	L_{10}	L_{50}	L_{90}
19-Jan-04				
0900	51	52	51	47
1000	51	52	51	47
1100	51	52	51	47
1200	51	52	51	47
1300	51	52	51	47
1400	51	52	51	47
1500	51	53	51	48
1600	51	53	51	48
1700	51	52	51	47
1800	51	53	51	48
1900	52	53	51	48
2000	51	53	51	48
2100	51	52	51	47
2200	51	52	51	47
2300	51	52	51	47
2400	50	52	51	47
20-Jan-04				
0100	51	52	51	47
0200	50	52	50	46
0300	50	52	50	47
0400	50	52	50	47
0500	51	53	51	48
0600	51	52	51	47
0700	51	52	51	47
0800	51	52	51	47
0900	51	52	51	47
1000	51	52	51	47
1100	51	52	51	47
1200	50	52	50	46
1300	51	52	51	47
1400	52	53	51	47
1500	52	53	51	47
1600	51	53	51	48
1700	51	52	51	48
1800	51	53	51	48
1900	51	53	51	48
2000	51	52	51	47
2100	50	52	51	47
2200	51	52	51	47

Table 3 (continued)

Time of Day	Noise Level, dB(A)			
	L_{eq}	L_{10}	L_{50}	L_{90}
20-Jan-04				
2300	50	52	51	47
2400	50	52	50	46
21-Jan-04				
0100	50	52	50	46
0200	50	51	50	46
0300	50	51	50	45
0400	50	52	50	46
0500	50	52	51	47
0600	50	52	50	47
0700	50	52	51	47
0800	50	52	50	46
0900	50	51	50	46

Notes:

1.) The Blythe Energy facility was not operating during the monitoring period.

2.) Temperature and wind conditions for the Blythe area during the monitoring period can be found in Appendix B.

3. PREDICTED OPERATIONAL NOISE LEVELS

The measurement data from the SWPC operational testing and CB II ambient testing can be used to predict operational levels at the nearest sensitive receptor, the home at 16275 West Hobsonway. Table 4 below summarizes CB II's predicted operational noise levels at the sensitive receptor with BEP and BEP II operating. For comparison, the data from *Noise & Vibration Table 3 – Summary of Predicted Noise Levels* from the BEP II PSA are also provided in Table 4 below; the PSA data is shaded.

Table 4

Summary of Predicted Operational Noise Levels

	CB II Predicted Levels						
Sensitive Receptor	Background Noise Level (L_{90}), dB(A)						
	Ambient (2003, 2004)	BEP	Ambient plus BEP	BEP II	Cumulative	Change re: Ambient	Change re: Ambient plus BEP
16531 Hobsonway	**46.0**	**39.9**	**47.0**	**44.7**	**49.0**	**+3.0**	**+2.0**
BEP II AFC Noise & Vibration Table 3 Data							
	Ambient (1999)	BEP	Ambient plus BEP	BEP II	Cumulative	Change re: Ambient (1999)	Change re: Ambient plus BEP
16531 Hobsonway	**43**	**44.9**	**47.1**	**49.2**	**51.1**	**+8.1**	**+4**

The CB II predicted levels in Table 4 were calculated using a value of 61.5 dB(A) at a distance of 400 feet from the noise envelope of BEP II and BEP. This is the level that SWPC measured 400 feet north of the BEP site; this is the highest level that SWPC measured and was measured 400 feet from the BEP cooling tower. For the BEP II project the cooling tower will be on the west side of the project site. The sensitive receptor is also primarily west of the BEP II site; it is therefore appropriate to use the level of 61.5 dB(A) for contributions from BEP II at the sensitive receptor. Using a value

of 61.5 dB(A) for the contribution from BEP likely overestimates the contribution from BEP at the sensitive receptor. As noted above, the BEP cooling tower is on the north side of the BEP project while the sensitive receptor is south and west of the BEP site. SWPC measured levels of 54.0 dB(A) and 56.2 dB(A) 400 feet south and west of BEP site; using a level of 61.5 dB(A) provides a conservative result for the BEP contribution at the sensitive receptor.

Predicted noise levels are based on a distance of 2728 feet from the sensitive receptor to the BEP II facility and 4798 feet to the Blythe I facility. These are the same values provided in the Section 7.3 of the BEP II AFC (July 2002). A drawing showing the location of the sensitive receptor with respect to the BEP II and BEP facilities is provided as Figure 2 and a drawing of the BEP II and BEP general arrangement is provided as Figure 3.

The SWPC measurements were obtained without the BEP inlet chilling plant operating. The BEP inlet chilling system includes an evaporative condenser, similar to a cooling tower, for heat rejection. The omission of the inlet chilling evaporative condenser/cooling tower noise should not affect the predicted noise levels at the sensitive receptor with the generating stations operating. The evaporative condenser/cooling tower is a small source compared to other plant noise sources (it has about 18% of the flow rate of the main cooling tower) and in the case of BEP II will be shielded from direct line of sight to the sensitive receptor by the BEP II HRSGs and main cooling tower.

The CB II predicted levels at the sensitive receptor with only the BEP facility operating show that operation of the BEP facility does not substantially increase L_{eq} levels at the sensitive receptor. The predicted increase, Table 4, is 1 dB. The measurements taken in December 2003 show an arithmetic average of 48.1 dB(A) for the periods when BEP is operating and 47.4 dB(A) when it is not. The measured increase of 0.7 dB with BEP operating is in excellent agreement with the predicted increase of 1 dB.

The BEP II PSA states that CEC Staff has concluded that a potential for significant noise impact exists where the noise of the project plus the background exceeds the background by 5 dB(A) L_{90} at the nearest noise sensitive receptor. Staff also states it is reasonable to assume that an increase in background noise levels up to 5 dB(A) in a rural setting is insignificant.

The CB II predicted increase in noise level at the nearest sensitive receptor, 3 dB(A), with both BEP and BEP II operating is less than Staff's significance criterion of 5 dB(A) increase over background. The cumulative increase of 3 dB(A) over measured background can be attained without BEP II implementing any additional noise abatement features than those provided for BEP.

Table 5 below indicates the noise level which would be required from BEP II at the sensitive receptor in order to stay just below the 5 dB(A) increase that Staff deems significant. **The level of 48.6 dB(A) for BEP II is not the predicted level from BEP II, rather it is the level for BEP II (at the nearest sensitive receptor) to keep the cumulative level within a 5 dB(A) increase.**

Table 5

Summary of Operational Noise Levels with 5 dB(A) Increase over Ambient

Sensitive Receptor	Background Noise Level (L_{90}), dB(A)						
	Ambient (2003, 2004)	BEP	Ambient plus BEP	BEP II	Cumulative	Change re: Ambient	Change re: Ambient plus BEP
16531 Hobsonway	**46.0**	**39.9**	**47.0**	**48.6**	**50.9**	**+4.9**	**+3.9**

A level of approximately 65.3 dB(A) would be required at a distance of 400 feet from the BEP II plant to produce 48.6 dB(A) at the nearest sensitive receptor. As noted above, SWPC measured 61.5 dB(A) 400 feet from the BEP cooling tower.

CONCLUSIONS

The noise level monitoring that was recently completed at the BEP facility and nearest sensitive receptor demonstrates that noise from the BEP facility is barely perceptible at the nearest sensitive receptor.

The predicted noise level at the nearest sensitive receptor with both BEP and the proposed BEP II facilities operating would exceed the ambient levels measured in December 2003 and January 2004 by 3 dB. The cumulative increase of 3 dB would be barely perceptible and would not be expected to be annoying. Noise at the nearest sensitive receptor due to the BEP and BEP II operations would not exceed the requirements of the relevant laws, ordinances, regulations, or standards.

Proposed Condition of Certification NOISE-6 for BEP II would require "mitigation measures to ensure that the noise level produced by operation of the project will not exceed an hourly average noise level (Leq) of more than 47 dBA, measured at any residence". The basis for 47 dB(A) is to not exceed an increase of 3 dB, a barely perceptible increase, at the nearest residence with the addition of BEP II noise to the noise from BEP and ambient noise.

The proposed Condition of Certification for NOISE-6 should be revised to read, in part, "mitigation measures, as required, to ensure that the noise level produced by operation of the project will not exceed an hourly average noise level (Leq) of more than 48.6 dB(A) measured, or calculated from measurements, at any residence". This will keep cumulative levels 3.9 and 4.9 dB(A) above ambient plus BEP and above ambient respectively. A level of 48.6 dB(A) from BEP II will not result in a significant noise impact at the nearest sensitive receptor as defined by CEC Staff. The clause to allow the contribution from BEP II at the nearest sensitive receptor to be calculated as well as measured is added to acknowledge existing L_{eq} levels at the nearest sensitive receptor. A review of Tables 2 and 3 shows that measured L_{eq} levels at the nearest sensitive receptor are generally 50 to 51 dB(A). If ambient L_{eq} levels are higher than the L_{eq} level produced by BEP II, the expected case, BEP II's contribution will have to be calculated.

Figure 2

Location of Nearest Residence

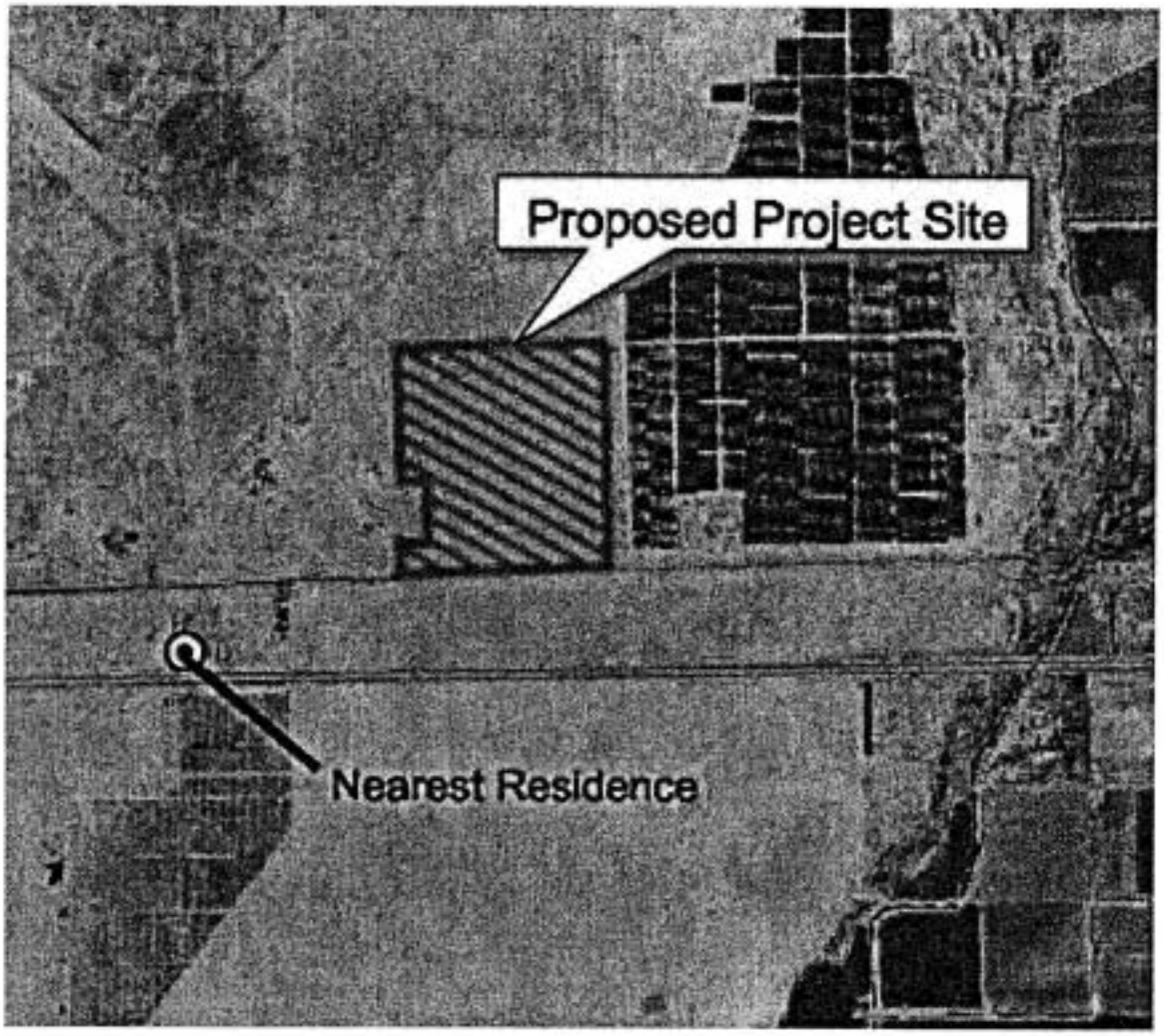
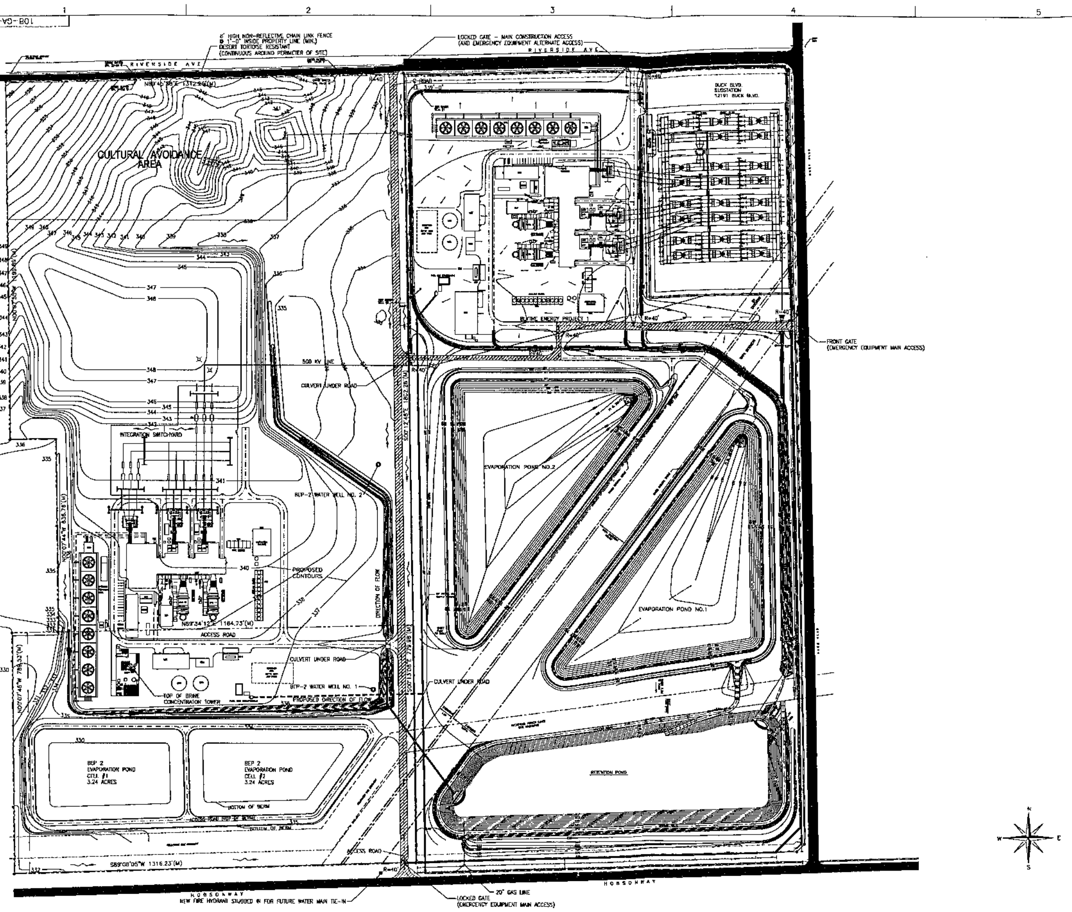


Figure 3

General Arrangement

(See PEC drawing 108-GA-001 on next sheet)



STRUCTURES

UBA	STRUCTURE FOR POWER CONTROL CENTER
UBE	STRUCTURE FOR MV-AUXILIARY POWER TRANSFORMER
UBF	STRUCTURE FOR GENERATOR TRANSFORMER
UCA	CONTROL ROOM BUILDING
UHA	HEAT RECOVERY STEAM GENERATOR
UHX	AMMONIA STORAGE AREA
UGA	RAW WATER STORAGE TANK
UGC	DEMINERALIZED WATER STORAGE TANK
UGU	STRUCTURE FOR EFFLUENT DISPOSAL
ULA	BOILER FEEDWATER PUMP HOUSE
UMA/UMB	GENERATOR BUILDING
UMY	PIPE AND CABLE BRIDGE
URA	COOLING TOWER STRUCTURE
URD	CIRCULATING WATER PUMP STRUCTURE
USA	INLET CHILLING EQUIPMENT
USG	FIRE PUMP HOUSE
USR	WASTE WATER TREATMENT AREA
UST	WORKSHOP / STORAGE AREA

LEGEND

- SURVEY MONUMENTS AND PROPERTY CORNER
- 500KV TRANSMISSION TOWER
- WELL
- DENOTES WETLANDS/MARSHY AREA
- TREE/EDGE OF WOODS
- FIRE HYDRANT
- PROPERTY LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND ELECTRIC LINE
- FLAIRED END SECTION (FES)
- DRAINAGE DITCH
- 770 FINAL GRADE CONTOUR
- AGGREGATE DITCH CHECK
- EMERGENCY EQUIPMENT MAIN ACCESS ROAD

NOTES:

1. CONTOURS INDICATE PRELIMINARY DESIGN FOR GRADING. CONTOURS SUBJECT TO MODIFICATION BASED ON FINAL DESIGN.
2. PROPOSED STORMWATER DRAINAGE TO BE DIRECTED BY SWALES WITH CULVERTS UNDER ROAD CROSSINGS.
3. PROPOSED DIRECTION OF FLOW IS CONCEPTUAL. PLAN BASED ON EXISTING CONTOURS AND EXISTING BLYTHE ENERGY PROJECT.
4. FRONT GATE SHALL HAVE GREEN SEATS INSTALLED ON THEM TO BE CONSISTENT WITH THE SURROUNDING LANDSCAPE.
5. ALL EMERGENCY ACCESS ROADS WILL CONSIST OF 40' TURNING RADIUS AND CONSTRUCTED WITH ALL WEATHER ROAD SURFACES.

REV	DATE	DESCRIPTION	DWN	DGN	CHK	APP
B	02-04-04	ADDED 500KV TRANSMISSION TOWER LOCATIONS, REVISED INTEGRATION SWITCHYARD	SRG		REG	REG
A	02-19-03	ISSUED FOR PROJECT REVIEW COMMITTEE REVIEW	SRG	–	REG	REG

SCALE: 1"=140'-0"

WARNING: 0 1/2 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

D SIZE 36"x24"

Power Engineers Collaborative, L.L.C.

120 South Riverside Plaza Suite 1950 Chicago, Illinois 60606

5682 West Greenfield Ave. Suite 109 West Allis, Wisconsin 53214

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BLYTHE ENERGY PROJECT PHASE II
BLYTHE, CALIFORNIA

GRADING AND DRAINAGE PLAN VIEW

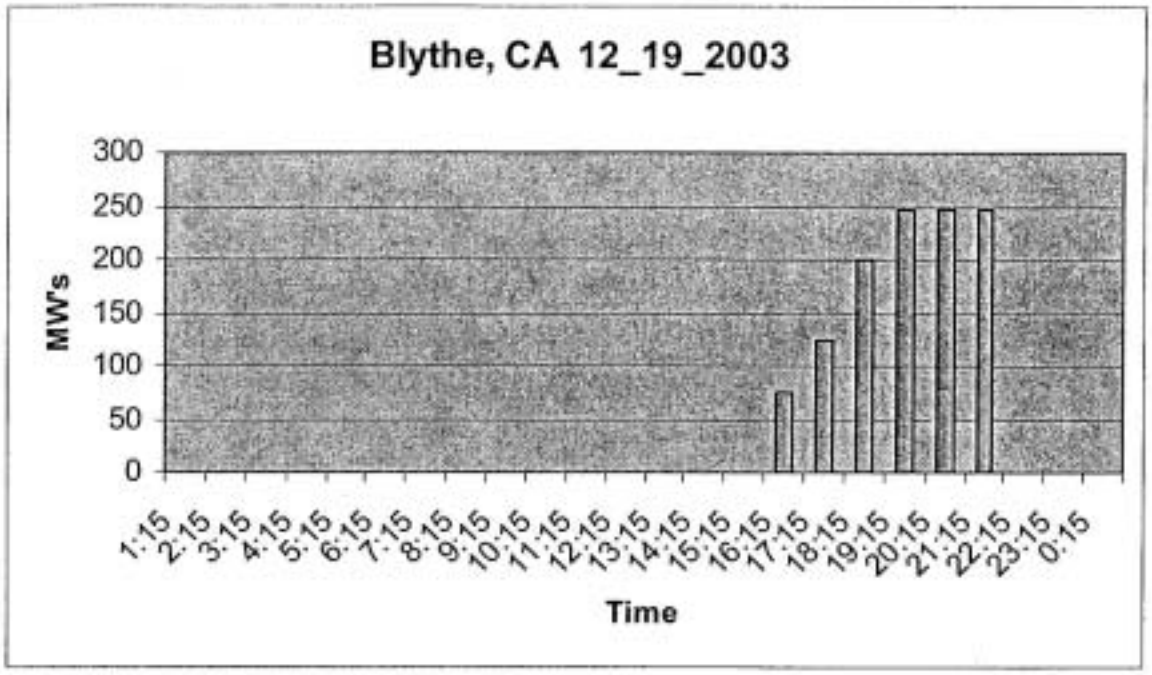
DWG# 108-GA-0001 REV. B

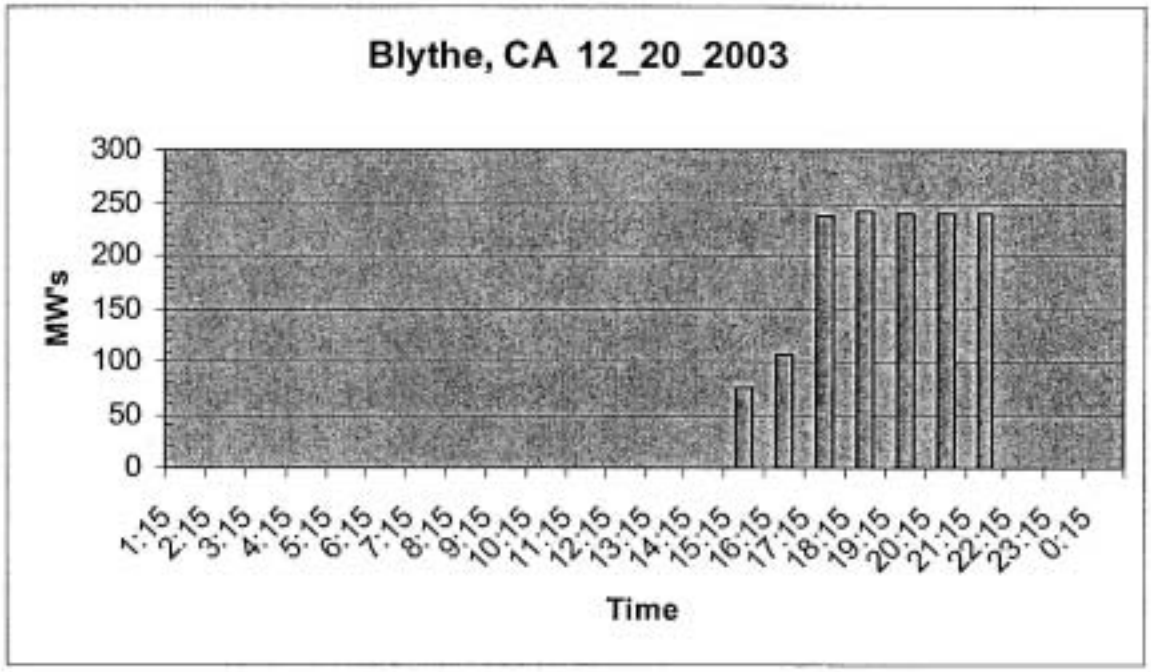
APPENDIX A

Blythe Energy Plant Output

For December 2003

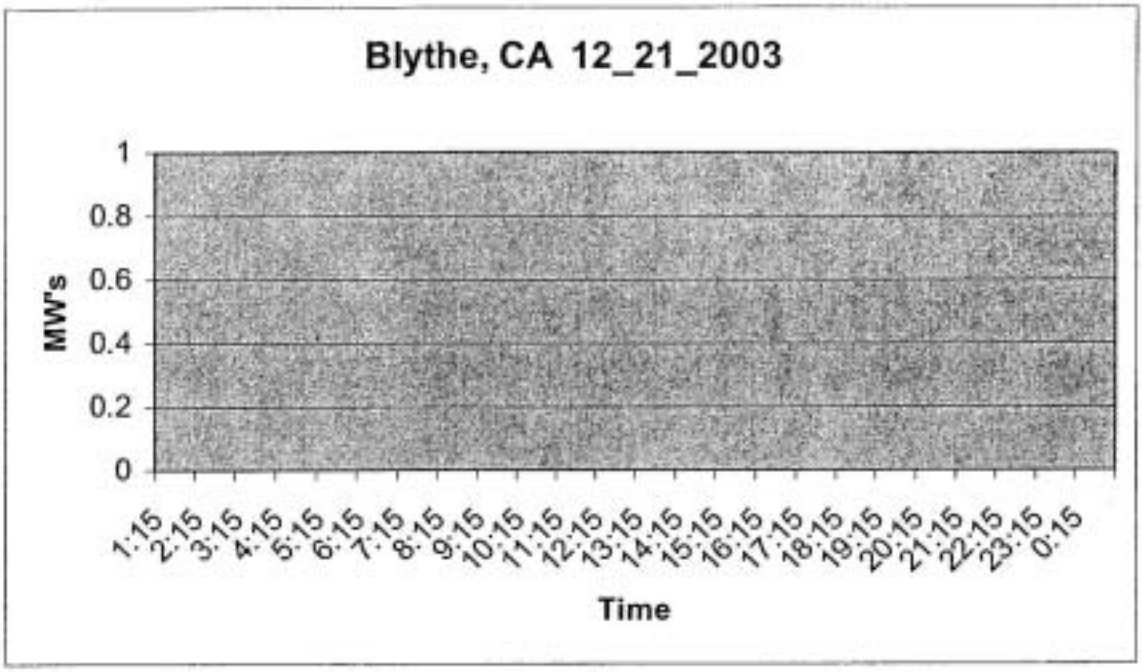
Monitoring Period

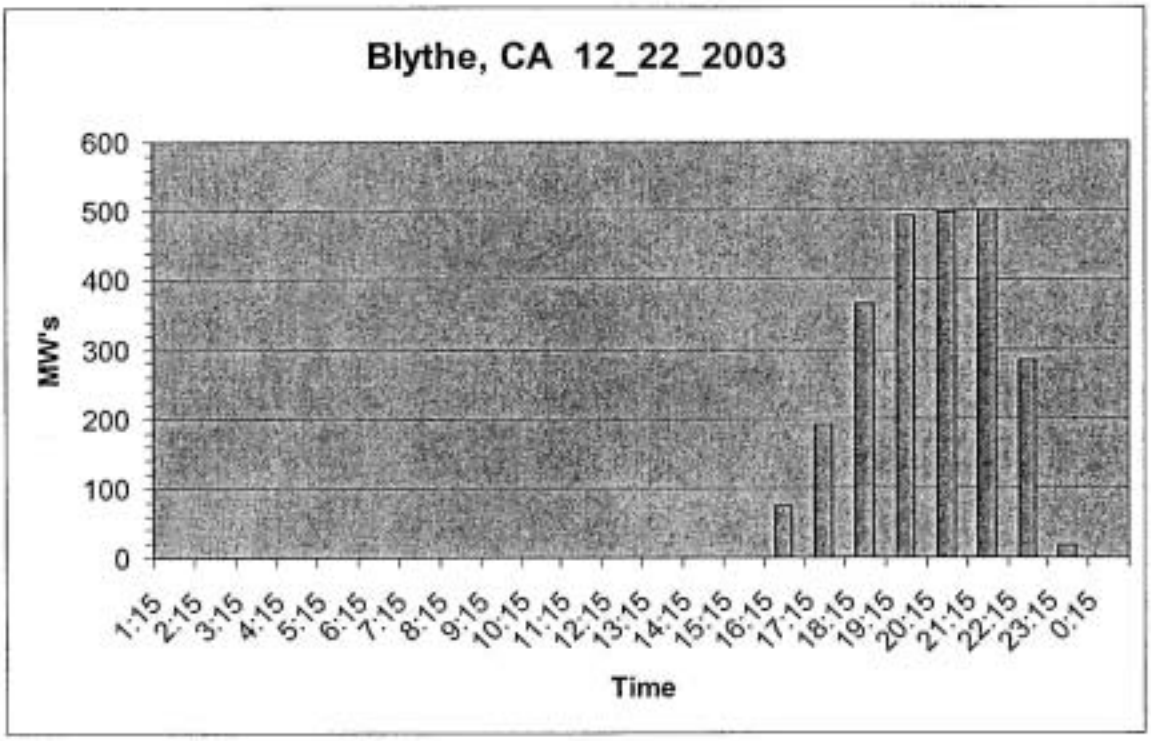




Blythe Energy

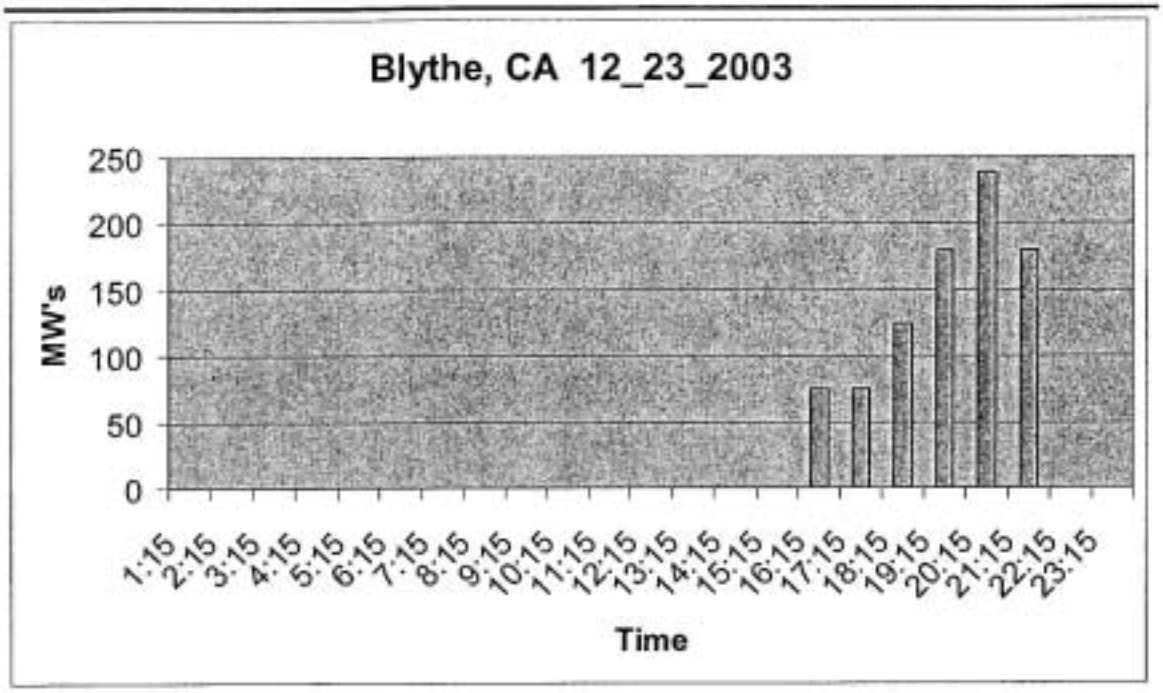
Plant Output vs Time





Blythe Energy

Plant Output vs Time



Blythe Energy

Plant Output vs Time

APPENDIX B

Meteorological Data

For Ambient Noise Measurement

Periods

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (In),	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
12/19/2003	0100	0.00	0.00	-2	5.6	38.0	72	30.0	3.1	344.7	49.7
	0200	0.00	0.00	-2	5.2	37.6	69	28.2	2.3	331.9	49.6
	0300	0.00	0.00	-1	5.3	37.2	71	28.6	3.5	42.7	49.6
	0400	0.00	0.00	-2	5.5	39.9	65	29.2	6.4	33.6	49.6
	0500	0.00	0.00	-2	5.4	39.9	65	29.0	7.0	42.2	49.5
	0600	0.00	0.00	-2	5.5	37.2	73	29.5	5.5	37.4	49.4
	0700	0.00	0.00	28	5.4	36.9	73	29.0	4.2	30.3	49.2
	0800	0.00	0.00	239	5.6	39.9	67	29.8	2.6	347.8	49.1
	0900	0.01	0.00	606	6.0	48.6	51	31.4	6.3	27.0	49.1
	1000	0.01	0.00	910	6.1	55.4	41	31.9	8.6	23.2	49.1
	1100	0.01	0.00	1095	6.3	60.3	35	32.6	8.2	26.7	49.0
	1200	0.01	0.00	990	6.0	64.2	29	31.6	5.2	358.2	48.9
	1300	0.01	0.00	818	6.5	66.0	30	33.6	3.0	340.5	49.0
	1400	0.01	0.00	576	8.0	66.1	36	38.7	3.0	18.4	49.0
	1500	0.00	0.00	367	6.3	64.0	41	39.8	4.3	45.8	49.2
	1600	0.00	0.00	135	9.8	60.7	54	43.9	2.6	19.9	49.4
	1700	0.00	0.00	24	9.1	55.9	60	42.0	3.2	15.7	49.6
	1800	0.00	0.00	-1	8.0	53.7	57	38.7	2.3	273.9	49.8
	1900	0.00	0.00	-1	7.9	50.9	62	38.4	2.4	91.8	50.0
	2000	0.00	0.00	0	8.0	49.1	67	38.6	3.8	56.9	50.2
	2100	0.00	0.00	0	7.4	48.4	64	36.9	3.8	322.4	50.3
	2200	0.00	0.00	0	6.4	48.3	55	33.0	3.1	134.6	50.3
	2300	0.00	0.00	0	7.0	48.4	61	35.4	2.6	89.4	50.3
	2400	0.00	0.00	0	8.1	45.1	79	39.0	2.3	338.2	50.3
Total/Avg	--	0.06	0.00	241.5	6.6	49.7	57.4	34.1	4.1	141.0	49.6

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (in)	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
12/20/2003	0100	0.00	0.00	0	7.2	46.9	66	36.2	2.1	87.9	50.3
	0200	0.00	0.00	0	7.4	47.7	66	36.7	3.0	20.7	50.3
	0300	0.00	0.00	0	6.8	45.6	65	34.6	2.2	57.1	50.3
	0400	0.00	0.00	0	6.8	42.5	74	34.8	3.0	55.5	50.3
	0500	0.00	0.00	-1	7.0	41.3	80	35.5	1.8	330.6	50.3
	0600	0.00	0.00	-1	6.9	39.2	85	35.0	1.9	66.3	50.2
	0700	0.00	0.00	10	6.6	37.7	87	34.1	1.8	213.3	50.2
	0800	0.00	0.00	257	6.7	43.1	71	34.2	2.3	115.6	50.1
	0900	0.00	0.00	388	7.9	49.4	68	38.4	1.9	325.2	49.9
	1000	0.01	0.00	668	7.7	52.7	57	37.8	2.7	347.9	49.8
	1100	0.01	0.00	819	7.2	58.5	43	36.1	2.5	317.7	49.8
	1200	0.01	0.00	1198	6.8	64.7	32	34.6	2.8	301.4	49.8
	1300	0.01	0.00	1001	6.2	68.5	26	32.5	1.9	320.0	49.8
	1400	0.01	0.00	697	7.1	69.1	29	35.8	2.1	319.4	49.9
	1500	0.01	0.00	554	7.1	71.7	27	35.8	1.8	309.0	50.1
	1600	0.00	0.00	248	6.7	69.4	27	34.3	1.8	150.2	50.2
	1700	0.00	0.00	21	7.9	61.9	42	38.6	2.5	287.4	50.5
	1800	0.00	0.00	0	7.2	57.9	44	36.0	2.0	214.0	50.7
	1900	0.00	0.00	-1	8.1	53.4	58	39.1	2.4	129.8	50.8
	2000	0.00	0.00	-1	8.9	50.8	70	41.4	1.8	312.7	50.9
	2100	0.00	0.00	-1	8.4	50.3	68	40.0	2.4	86.9	51.0
	2200	0.00	0.00	0	8.8	50.0	71	41.1	2.7	24.4	51.0
	2300	0.00	0.00	0	7.8	51.4	61	38.2	3.2	84.3	51.7
	2400	0.00	0.00	0	8.8	50.1	71	41.1	3.0	284.5	51.1
Total/Avg	--	0.06	0.00	244.0	7.4	53.1	57.8	38.7	2.3	198.4	50.4

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (in)	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
12/21/2003	0100	0.00	0.00	0	7.8	51.7	60	38.2	2.8	86.8	51.1
	0200	0.00	0.00	0	7.3	51.4	57	36.6	3.1	96.9	51.1
	0300	0.00	0.00	0	8.2	44.9	80	39.3	3.0	274.8	51.0
	0400	0.00	0.00	0	8.1	43.4	95	39.1	2.6	30.0	51.0
	0500	0.00	0.00	0	7.5	42.4	81	37.1	3.0	118.0	51.0
	0600	0.00	0.00	-1	7.7	39.3	94	37.6	2.6	280.5	50.9
	0700	0.00	0.00	14	7.3	39.7	88	36.5	2.9	101.5	50.9
	0800	0.00	0.00	260	8.0	43.0	85	38.8	2.4	273.7	50.8
	0900	0.00	0.00	597	8.6	51.7	65	40.5	2.5	278.1	50.7
	1000	0.01	0.00	882	8.5	58.7	50	40.3	2.6	259.8	50.6
	1100	0.01	0.00	1069	6.9	63.6	34	35.0	3.5	209.2	50.6
	1200	0.01	0.00	1129	7.4	67.7	32	36.7	4.6	221.4	50.5
	1300	0.01	0.00	1072	7.3	70.6	28	36.4	3.8	243.7	50.6
	1400	0.01	0.00	896	8.6	71.5	33	40.6	4.8	9.5	50.8
	1500	0.01	0.00	620	10.9	70.8	42	46.7	8.8	323.3	50.8
	1600	0.00	0.00	291	10.8	68.7	46	46.6	5.4	280.5	51.0
	1700	0.00	0.00	22	10.4	62.2	54	45.5	5.0	304.8	51.2
	1800	0.00	0.00	0	9.8	61.3	53	44.0	4.4	307.3	51.4
	1900	0.00	0.00	0	9.9	57.5	61	44.2	3.7	285.7	51.5
	2000	0.00	0.00	-1	9.4	54.8	64	42.9	2.9	335.8	51.7
	2100	0.00	0.00	-1	8.9	48.3	77	41.5	2.6	29.9	51.7
	2200	0.00	0.00	0	8.9	50.1	71	41.1	2.7	103.3	51.8
	2300	0.00	0.00	0	8.6	46.6	79	40.5	2.7	92.9	51.8
	2400	0.00	0.00	0	8.4	43.8	87	40.1	2.3	69.8	51.7
Total/Avg	--	0.06	0.00	285.4	8.5	54.3	62.7	40.2	3.5	192.3	51.1

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (In)	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
12/22/2003	0100	0.00	0.00	0	8.1	41.4	92	39.2	2.0	330.8	51.7
	0200	0.00	0.00	-1	8.2	42.2	90	39.4	2.5	66.3	51.6
	0300	0.00	0.00	-1	7.9	40.9	91	38.5	3.2	53.3	51.5
	0400	0.00	0.00	-1	7.8	39.7	94	38.1	3.5	46.3	51.4
	0500	0.00	0.00	-2	8.1	41.2	92	39.0	4.9	55.9	51.3
	0600	0.00	0.00	-1	8.0	40.7	93	38.8	4.1	4.8	51.1
	0700	0.00	0.00	14	7.9	40.4	93	38.6	3.0	67.6	51.0
	0800	0.00	0.00	259	8.9	44.1	89	41.1	5.3	36.3	50.9
	0900	0.00	0.00	603	10.1	52.1	76	44.9	4.3	7.4	50.8
	1000	0.01	0.00	887	10.3	56.7	66	45.3	7.7	45.5	50.7
	1100	0.01	0.00	1008	10.5	61.6	56	45.7	8.7	44.8	50.6
	1200	0.01	0.00	1062	10.7	65.8	49	46.2	7.7	19.7	50.6
	1300	0.01	0.00	1028	9.7	68.8	40	43.8	7.4	8.0	50.6
	1400	0.01	0.00	935	9.2	69.1	38	42.5	8.0	11.5	50.7
	1500	0.01	0.00	551	9.2	68.1	39	42.3	6.8	355.9	50.9
	1600	0.00	0.00	176	9.1	63.9	45	42.1	5.1	10.7	51.1
	1700	0.00	0.00	14	8.4	62.0	44	40.1	3.6	78.9	51.3
	1800	0.00	0.00	0	8.8	55.3	59	41.2	3.9	37.0	51.5
	1900	0.00	0.00	-1	8.5	54.9	58	40.3	4.1	74.4	51.6
	2000	0.00	0.00	-1	8.1	53.5	58	39.2	5.6	63.9	51.7
	2100	0.00	0.00	-1	8.0	50.3	65	38.6	3.6	29.6	51.8
	2200	0.00	0.00	0	8.1	48.4	70	39.2	3.5	26.8	51.8
	2300	0.00	0.00	0	7.8	49.6	64	38.1	4.0	32.3	51.8
	2400	0.00	0.00	0	7.6	51.8	58	37.4	6.7	34.7	51.8
Total/Avg	--	0.06	0.00	263.6	8.7	52.8	67.5	40.8	5.0	64.4	51.2

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (in)	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
12/23/2003	0100	0.00	0.00	0	7.5	51.5	57	37.0	6.0	40.8	51.8
	0200	0.00	0.00	0	7.5	49.8	61	37.1	5.1	29.1	51.7
	0300	0.00	0.00	0	7.2	49.7	60	36.2	6.9	37.4	51.7
	0400	0.00	0.00	0	7.3	48.8	62	36.5	8.5	48.5	51.6
	0500	0.00	0.00	0	7.6	47.0	69	37.3	7.7	46.0	51.6
	0600	0.00	0.00	0	7.4	47.6	66	36.9	6.0	38.0	51.5
	0700	0.00	0.00	10	7.4	45.6	71	36.7	4.6	61.4	51.5
	0800	0.00	0.00	241	7.8	46.9	72	38.2	5.9	47.6	51.5
	0900	0.00	0.00	479	8.6	51.7	65	40.5	4.5	5.2	51.4
	1000	0.01	0.00	610	9.1	57.4	56	42.1	3.6	350.9	51.3
	1100	0.01	0.00	689	8.5	58.6	51	40.4	9.7	27.7	51.3
	1200	0.01	0.00	582	8.6	60.5	48	40.7	9.6	28.5	51.3
	1300	0.01	0.00	571	8.0	61.8	43	38.9	9.1	29.4	51.3
	1400	0.01	0.00	477	9.2	62.7	47	42.3	6.4	30.3	51.4
	1500	0.00	0.00	356	9.6	62.2	50	43.6	6.7	39.0	51.5
	1600	0.00	0.00	115	9.0	60.6	50	41.8	6.8	36.4	51.7
	1700	0.00	0.00	6	9.6	56.9	60	43.3	3.7	27.9	51.8
	1800	0.00	0.00	-1	8.8	57.9	54	41.3	2.2	52.7	51.9
	1900	0.00	0.00	-2	8.3	56.7	53	39.8	3.0	217.9	52.0
	2000	0.00	0.00	-2	8.7	57.0	55	41.0	4.6	238.4	52.1
	2100	0.00	0.01	-1	11.2	54.7	77	47.6	2.6	192.5	52.2
	2200	0.00	0.00	-1	12.4	53.4	89	50.3	4.0	95.6	52.2
	2300	0.00	0.00	-1	12.3	51.9	94	50.1	3.5	2.2	52.3
	2400	0.00	0.00	-1	11.9	52.5	88	49.1	4.1	34.8	52.3
Total/Avg	--	0.05	0.01	172.0	8.9	54.3	62.4	41.2	5.8	73.2	51.7

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (in)	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
01/19/2004	0100	--M	0.00P	0P	7.2P	41.3P	--M	--M	2.8P	17.3P	--P
	0200	--M	0.00P	0P	7.3P	42.9P	--M	--M	3.7P	45.4P	--P
	0300	--M	0.00P	0P	7.4P	43.4P	--M	--M	3.5P	15.5P	--P
	0400	0.00	0.00	0	7.6	42.0	85	38.0	3.1	35.9	--M
	0500	0.00	0.00	0	7.5	42.5	81	37.0	3.0	20.6	--M
	0600	0.00	0.00	0	6.9	44.0	71	35.1	2.6	47.1	--M
	0700	0.00	0.00	16	7.3	39.4	89	36.4	3.3	22.3	--M
	0800	0.00	0.00	176	8.0	44.2	81	38.7	2.7	10.3	--M
	0900	0.00	0.00	297	8.3	49.5	69	39.6	3.8	31.9	--M
	1000	0.00	0.00	460	8.2	52.8	60	39.3	2.7	331.0	--M
	1100	0.01	0.00	793	7.1	57.3	44	35.9	3.5	135.4	--M
	1200	0.01	0.00	921	7.8	60.7	43	38.1	2.8	35.7	--M
	1300	0.01	0.00	878	8.4	62.4	44	40.1	4.7	31.2	--M
	1400	0.00	0.00	373	9.6	61.3	52	43.6	4.5	35.1	--M
	1500	0.01	0.00	436	9.9	61.7	53	44.3	7.9	25.7	--M
	1600	0.00	0.00	139	10.2	60.2	58	45.1	7.5	29.5	--M
	1700	0.00	0.00	40	10.5	58.4	63	45.8	5.5	34.9	--M
	1800	0.00	0.00	0	10.4	54.3	72	45.5	4.2	34.9	--M
	1900	0.00	0.00	-1	10.0	50.8	79	44.5	4.2	56.5	--M
	2000	0.00	0.00	-2	9.4	48.7	80	42.8	3.6	54.6	--M
	2100	0.00	0.00	-1	9.1	46.5	84	42.1	2.9	334.3	--M
	2200	0.00	0.00	0	8.6	45.8	82	40.6	2.7	11.0	--M
	2300	0.00	0.00	0	8.5	44.0	87	40.4	2.9	78.1	--M
	2400	0.00	0.00	0	8.1	42.0	89	39.1	2.5	32.8	--M
Total/Avg	--	0.04	0.00	189.5	8.5	49.8	69.8	40.6	3.8	62.8	NaN

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (in)	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
01/20/2004	0100	--M	0.00 P	0 P	7.9 P	41.8 P	--M	--M	1.8 P	54.5 P	--P
	0200	--M	0.00 P	0 P	7.4 P	39.0 P	--M	--M	2.2 P	262.0 P	--P
	0300	--M	0.00 P	0 P	7.7 P	39.2 P	--M	--M	1.7 P	101.8 P	--P
	0400	0.00	0.00	-1	7.6	37.9	98	37.4	1.4	318.7	--M
	0500	0.00	0.00	-1	7.2	37.0	97	36.1	2.9	13.2	--M
	0600	0.00	0.00	-1	6.9	35.9	97	35.1	2.2	114.3	--M
	0700	0.00	0.00	14	6.5	33.7	100	33.6	2.8	341.7	--M
	0800	0.00	0.00	260	7.8	39.7	95	39.3	3.4	18.0	--M
	0900	0.00	0.00	618	9.2	46.7	85	42.3	4.9	21.4	--M
	1000	0.01	0.00	859	10.3	54.6	70	45.2	6.4	17.5	--M
	1100	0.01	0.00	1066	10.2	57.9	62	45.1	6.9	26.4	--M
	1200	0.01	0.00	1216	10.1	61.6	54	44.9	5.1	24.8	--M
	1300	0.01	0.00	1158	9.8	63.7	48	43.9	4.3	51.6	--M
	1400	0.01	0.00	1037	9.7	65.8	45	43.8	3.3	48.2	--M
	1500	0.01	0.00	719	9.4	67.1	42	43.0	2.8	276.5	--M
	1600	0.00	0.00	377	10.0	66.4	47	44.6	2.0	27.5	--M
	1700	0.00	0.00	69	9.9	62.2	52	44.3	2.2	67.4	--M
	1800	0.00	0.00	0	10.4	56.6	66	45.5	2.6	39.6	--M
	1900	0.00	0.00	0	9.4	54.4	65	42.9	2.7	31.0	--M
	2000	0.00	0.00	-1	9.0	50.6	71	41.7	3.5	59.6	--M
	2100	0.00	0.00	-2	9.3	48.7	79	42.5	3.0	14.8	--M
	2200	0.00	0.00	-1	8.8	50.7	70	41.1	2.7	110.4	--M
	2300	0.00	0.00	0	8.8	47.9	78	41.3	4.7	129.0	--M
	2400	0.00	0.00	-1	8.9	45.1	87	41.5	3.5	40.1	--M
Total/Avg	--	0.06	0.00	307.7	8.8	50.1	71.8	41.6	3.3	92.0	NaN

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

Blythe NE #135 - Imperial/Coachella Valley Region

Date	Hour	ETo (in)	Precip (In)	Sol Rad (Ly/day)	Vapor Pressure (mBars)	Air Temp (°F)	Rel Hum (%)	Dew Point (°F)	Wind Speed (MPH)	Wind Dir (0-360)	Soil Temp (°F)
01/21/2004	0100	--M	0.00 P	0 P	8.7 P	43.1 P	--M	--M	2.7 P	41.7 P	--P
	0200	--M	0.00 P	0 P	8.7 P	42.2 P	--M	--M	2.8 P	26.6 P	--P
	0300	--M	0.00 P	0 P	9.0 P	42.9 P	--M	--M	3.0 P	47.7 P	--P
	0400	0.00	0.00	0	8.8	43.7	91	41.2	3.4	33.8	--M
	0500	0.00	0.00	0	8.7	44.4	87	40.8	4.7	41.2	--M
	0600	0.00	0.00	0	8.2	45.3	79	39.3	4.3	73.7	--M
	0700	0.00	0.00	9	7.8	44.8	77	38.1	6.7	36.9	--M
	0800	0.00	0.00	186	7.4	46.0	70	36.7	7.8	34.5	--M
	0900	0.00	0.00	361	7.4	47.7	66	38.9	8.1	40.4	--M
	1000	0.00	0.00	377	7.8	51.8	59	38.2	7.0	41.7	--M
	1100	0.01	0.00	732	8.2	56.9	52	39.3	7.6	32.1	--M
	1200	0.02	0.00	1232	8.2	60.2	46	39.4	9.5	28.8	--M
	1300	0.01	0.00	961	8.6	61.4	46	40.6	8.3	27.2	--M
	1400	0.01	0.00	708	9.0	61.6	48	41.8	7.3	31.8	--M
	1500	0.01	0.00	710	9.3	63.2	47	42.7	6.8	15.8	--M
	1600	0.00	0.00	177	9.6	59.6	55	43.5	5.2	34.1	--M
	1700	0.00	0.00	46	9.2	56.4	59	42.4	3.4	66.4	--M
	1800	0.00	0.00	-1	8.5	54.9	58	40.2	3.5	60.0	--M
	1900	0.00	0.00	-2	7.7	54.7	53	37.8	6.7	26.3	--M
	2000	0.00	0.00	-1	5.9	59.3	34	31.0	11.2	4.2	--M
	2100	0.00	0.00	-1	5.7	56.5	38	30.3	9.8	12.0	--M
	2200	0.00	0.00	-2	6.2	52.0	47	32.4	7.0	34.4	--M
	2300	0.00	0.00	-2	6.5	49.0	55	33.7	5.8	33.1	--M
	2400	0.00	0.00	-1	6.5	50.2	53	33.5	7.1	41.3	--M
Total/Avg	--	0.06	0.00	228.7	8.0	52.0	58.0	38.1	6.2	36.1	NaN

Standard Hourly Report from

California Irrigation Management Information System

Department of Water Resources

PUBLIC HEALTH

Applicant's Comments to BEP II Preliminary Staff Assessment Public Health		
Number	**Comment**	**Page**
1	The text states the proposed project would occupy parcels of unimproved land. CB II clarifies the property to be used by BEP II has been "improved". Blythe Energy received an approval in Amendment 1B to the BE License to move over 200,000 cubic yards of excess soil from the BEP site to area where BEP II will be constructed. The excess soil was graded and compacted.	4.7-6
3	The text notes evaporation rates of 1500 to 1800 gpm for the cooling tower. CB II provided estimated annual average evaporation rates of approximately 1860 gpm for the main cooling tower and 160 gpm for the inlet chilling cooling tower. These estimates were provided as responses to Data Request 202.	4.7-9

PUBLIC HEALTH

CONDITION OF CERTIFICATION

PH-1: The project owner shall perform a visual inspection of the cooling tower drift eliminators once per calendar year, and repair or replace any drift eliminator components which are broken or missing. Prior to initial operation of the project, the project owner shall have the cooling tower vendor's field representative inspect the cooling tower drift eliminator and certify that the installation was performed in a satisfactory manner. The CPM may, in years 5 and 15 of project operation, require the project owner to perform a source test of the PM_{10} emissions rate from the cooling tower to verify continued compliance with the vendor guaranteed drift rate.

Verification: The project owner shall include the results of the annual inspection of the cooling tower drift eliminators and a description of any repairs performed in the next required annual compliance report. The initial compliance report will include a copy of the cooling tower vendor's field representative's inspection report of the drift eliminator installation. If the CPM requires a source test as specified in Public Health-1, the project owner shall submit to the CPM for approval a detailed source test procedure 60 days prior to the test. The project owner shall incorporate the CPM's comments, conduct testing, and submit test results to the CPM within 60 days following the tests.

CB II Comments:

CB II accepts this condition as written.

PUBLIC HEALTH

PH-2: The project owner shall develop and implement a cooling tower Biocide Use, Biofilm Prevention, and Legionella Control Program to ensure that cooling tower bacterial growth is controlled. The Program shall be consistent with CEC's guidelines or the Cooling Tower Institute's guidelines for control of Legionella.

Verification: At least 30 days prior to the commencement of cooling tower operations, the Project Owner shall provide the Biocide Use, Biofilm Prevention, and Legionella Control Program to the CPM for review and approval.

CB II Comments:

CB II accepts this condition as written.

SOCIOECONOMICS

Applicant's Comments to BEP II Preliminary Staff Assessment Socioeconomics		
Number	**Comment**	**Page**
1	The section headed "Environmental Setting and Impacts Analysis" states "The BEP I is currently under construction and is owned by Wisvest Corporation." CB II clarifies that BEP I construction is complete and the project is owned by FPL Energy.	4.8-1
2	In various sections Staff comments on the incompleteness of the WCOP, particularly with regards to the proposed fallowing of croplands. CB II does not agree that the WCOP lacks the detail for Staff to complete its Socioeconomic evaluation of the proposed project.	4.8-1 4.8-5 4.8-7 4.8-12
3	The section headed "Water Supply and Agricultural Water" states "Construction of BEP I included three on-site wells to supply water for all power plant needs." and "BEP II will construct and operate one additional groundwater pumping well for its water supply...". CB II clarifies that the BEP II facility will have two production wells to supply water for all power plant needs. Also, BEP I constructed two, not three, production wells.	4.8-7
4	The section headed "Water Supply and Agricultural Water" states "Water staff has concluded that the proposed use of groundwater to cool the plant would cause a significant direct impact to the Palo Verde Irrigation District water supply and its users, and contribute to a significant cumulative impact to the State's Colorado River water supply and its users." Similar statements are found in the section headed "Summary". CB II does not agree that the proposed use of groundwater would cause a significant direct impact to the PVID water supply and its users and that it would contribute to a significant cumulative impact to the States Colorado River water supply and its users. A complete response to this is provided in the CB II comments to the Soils and Water section.	4.8-7 4.8-10
5	The section headed "Sewer" states "Wastewater from BEP II would be disposed through the existing BEP I septic tank and leach field system. CB II clarifies that BEP II will be provided with its own septic tank and leach field system; no connection to the BEP I septic tank and leach field system is proposed.	4.8-7

SOCIOECONOMICS

CONDITION OF CERTIFICATION

SOCIO-1 The project owner shall pay the statutory school impact development fee as required at the time of filing for the "in-lieu" building permit.

Verification: The project owner shall provide proof of payment of the statutory development fee to the Compliance Project Manager (CPM) in the next Monthly Compliance Report following the payment.

CB II Comment:

CB II accepts the proposed condition as written.

SOIL AND WATER RESOURCES

Applicant's Comments to BEP II Preliminary Staff Assessment Soil and Water Resources		
Number	**Comment**	**Page**
1	The section headed "Recent Groundwater Quality Testing" notes that "Staff has requested a complete listing of soil and water quality sampling for volatile and semi-volatile organic compounds, pesticides, and Nitrates (BEP 2002a, Data Request 64). The Applicant has not provided this report to the CEC. Staff will need to evaluate the most recent sampling results to evaluate potential impacts related to current concentrations of these constituents in groundwater to complete the analysis of this issue for the FSA." The requested information was acquired by Blythe Energy, not CB II, and is being submitted by the Blythe Energy project as part of their compliance reporting. Staff has indicated it will obtain information from Blythe Energy as soon as BEP is operating on a more continuous basis. (Similar comment for page 4.9-39 – Groundwater)	4.9-19 4.9-39
2	The section headed "Soils and Vegetation" appears to be describing erosion along the gas pipeline that was constructed as part of the BEP project – "The water erosion hazard is expected to be slight at the site, along the transmission lines, and at the interconnection to the SoCalGas natural gas pipeline. At the interconnect to the El Paso natural gas pipeline, the erosion hazard is expected to be nonexistent or slight, except for the segment extending from Rannels Drain to Hobsonway." CB II would like to clarify that the gas interconnect for BEP II will be on the BEP site and the connection is not to SoCalGas or El Paso but rather to a line owned by Blythe Energy.	4.9-20
3	The section headed "Soils and Vegetation" states that "The BEP II project is an expansion of the BEP I site and occupies approximately 60 acres east of the BEP I site." CB II would like to clarify the BEP site consists of approximately 152 acres and BEP II will occupy ~ 52 acres on the west side of the BEP site. The BEP II site is an "expansion of the BEP I site" only in the sense that it is adjacent to BEP I.	4.9-22
4	In the section headed "Heat Balances" Staff notes that "The heat balances are not consistent with current design selection, which uses mechanical chillers rather than evaporative coolers for GTIC (gas turbine inlet cooling) (BEP 2003). The heat balances show direct evaporation of water for GTIC, i.e., spray water injection."	4.9-23

	CB II agrees the heat balances show a plant design with evaporative coolers and this does not reflect all of the current plant designs (though it did reflect the plant design at the time of the response to DR 200). CB II has obtained heat flow diagrams from Siemens Westinghouse for the same ambient conditions as the DR 200 heat balances. The Siemens Westinghouse heat flow diagrams are attached (Soil and Water Attachment 1). These heat flow diagrams note the status of the inlet chiller and show the status of the duct firing. The heat flow diagrams show circulating water temperatures at the inlet and outlet of the condenser and circulating water mass flow rates; therefore, heat input to the condenser can be calculated. The heat flow diagrams were developed by a proprietary Siemens Westinghouse performance program. This is the same program Siemens Westinghouse uses to determine contract performance values; it is not a program to which CB II has access (except via requests for selected output data). CB II considers these heat flow diagrams to provide information that is more accurate than would be provided by commercially available programs such as GateCycle. Additionally, we agree with Staff that the negative temperature "rise" across the duct burner in Fig. 2.0-6A is not possible. As the DR 200 heat balances do not reflect current plant design and revised heat flow diagrams have been provided, CB II sees no need to investigate this anomaly any further.	
5	The section headed "Water Balances" contains a discussion by Staff on the water balance diagrams provided as part of the water balances provided in the AFC. Staff correctly notes the water balance of Figure 7.13-10A depicts a plant design with evaporative cooling (and CB II agrees that this does not reflect current plant design alternatives). Staff points out the response to DR 144 indicates somewhat more cooling water is required for a plant with a mechanical chiller (in comparison to a plant with evaporative cooling). Staff (and the DR 144 response) are correct in stating that a plant with a mechanical chiller will require more cooling water. This discussion above also applies to Staff's comments on AFC Figure 7.13-10B.	4.9-24

SOIL AND WATER RESOURCES

	Staff notes that the water balances and related AFC text discussions do not specify the amount of auxiliary firing in the modeling for the numbers. The BEP II equipment is designed for a minimal amount of duct firing. CB II has provided heat flow diagrams prepared by Siemens Westinghouse that indicate the amount of duct firing that can be achieved by the plant at a typical summer condition (95°F dry bulb and 40% relative humidity) with the chiller in operation. The duct firing capacity, including both HRSGs, at these conditions with the inlet chiller in operation is 22.8 x 10^6 Btu/h. With the inlet chiller in operation, the duct firing capacity is constant over the range of summer ambient temperature conditions.	
6	Staff provides a comparison of Applicant derived and Staff derived water requirements for several ambient conditions in Tables 4 and 5. The text associated with the tables notes that it is difficult to explain the discrepancies between the results (that is the Applicant's and Staff's estimates of water usage) and that underlying assumptions for the Applicant's estimates were not always known. CB II would like to clarify that our estimates did not include duct firing. Also, we have obtained from Siemens Westinghouse estimates of main cooling tower evaporation rates for the conditions noted in Tables 4 and 5. The Siemens Westinghouse estimates of main cooling tower evaporation rates are in close agreement with the rates included in the "Water Balance*" columns of Tables 4 and 5. CB II does not believe that the main cooling tower evaporation rates in the columns headed "Heat Balance**" accurately represent predicted main cooling tower evaporation rates.	4.9-25
7	In Table 6 Staff presents estimated total water flows for a variety of ambient conditions and sources. Staff notes that the Applicant provided information in the response to DR 202 appears to be erroneous. CB II agrees with Staff's comment. The response to DR 202 included a value of 42 gallons per day for the condition noted; the correct value is 42 gallons per minute (60,480 gallons per day). Staff also indicates that the calculated evaporation rate (calculated by Staff) from Heat Balance Figure 2.0-6C disagree with the other data. While CB II doesn't know how staff derived their values, we suspect that the discrepancy may be associated with assumptions made regarding duct firing. Our heat and water balances for 59F (heat balance 6C temperature) did not include duct firing.	4.9-26

SOIL AND WATER RESOURCES

8	In the section headed "Project Water Supply" Staff notes that "The Applicant has proposed to interconnect the water delivery system of the BEP II with BEP I to provide operational flexibility." CB II would like to clarify that BEP II may connect its well pump/raw water system with BEP I's system for emergency backup only.	4.9-28
9	Staff notes that the center of drawdown would shift and alter the pattern of well interference by a maximum of 500 feet if both BEP II and BEP I were served by the well pumps from one of the sites. CB II would like to clarify that a significant shift of the pattern of well interference would only occur if both plants were served by well pumps from one plant for an extended period of time. Service to both plants by one plant would only occur if both wells at one plant are simultaneously out of service. Having both pumps at one plant out of service would be an unusual condition and would last for a short duration, days – enough time so that repairs could be made, compared to the operating life of the generating stations, 30 years.	4.9-28
10	In the section headed "Evaporation Ponds" Staff notes that "Other wastewater streams from the oil water separator and the reverse osmosis section of the demineralizer unit in the water treatment plant will also be discharged to the evaporation pond (BEP II 2002a, Data Response 68)". CB II would like to clarify that we expect the plant process design to route the RO waste stream directly to the cooling tower as is done at BEP I and not to the evaporation pond.	4.9-30
11	In the section headed "Evaporation Ponds" Staff notes that the "BEP II evaporation pond is designed as a 2-cell pond with a total evaporative area of approximately 7 acres and a total storage capacity of approximately 62 acre-feet (BEP II 2002)." CB II would like to clarify that the evaporation pond physical properties can be found in the response to DR 149. This DR response shows that the stage area at the maximum operating level of the combined ponds is 6.07 acres, the maximum operating level includes two feet of freeboard for the pond.	4.9-30 4.9-36
12	In the section headed "Evaporation Ponds" Staff provides a discussion of the Applicant's Waste Discharge Permit Application submitted to the RWQCB in May of 2002. Staff correctly identifies that the BEP II Waste Discharge Permit application was based on the RWQCB's requirements for the BEP I evaporation ponds and that the BEP II evaporation ponds do not have the same operating capacities as the BEP I ponds. CB II submitted a revised Waste Permit Application to the RWQCB on February 20,	4.9-30 4.9-37 4.9-80

	2004 and a revision on March 29th. Copie of these documents were provided to the CEC's Project Manager, Bill Pfanner. The revised application addresses the operating limits imposed by the BEP II ponds. (This also applies to the sections headed "Process Wastewater on page 4.9-37 and "RWQCB WDRs for Waste Discharge to Evaporation Ponds" on page 4.9-80)	
13	In the section headed "Storm Water" Staff notes that "Storm water runoff from upgradient of the BEP site will be routed in drainage channels to the retention basin in the southeast corner of the site." and "Retention basin design plans have been reviewed and approved by the City of Blythe." CB II would like to add that the approved BEP storm water drainage design includes the capture and percolation of storm water from the entire 152 acre BEP site (including the BEP II site after the addition of the spoils from the construction of the BEP evaporation ponds and retention basin). Additionally, the BEP storm water drainage and retention plans have been reviewed and approved by the Blythe CBO, the Energy Commission's representative; the BEP stormwater drainage and retention plans have the CEC's approval.	4.9-30
14	The section headed "Staff Analysis of Well Interference Impacts" contains two equations in which it appears that the numerator and denominator are not separated by a division sign.	4.9-35 and 4.9-36
15	The section headed "Storm Water, Erosion, and Retention Basin" notes "The drainage plans proposed for BEP II are intended to route storm water runoff from the project site and land upgradient of the site to the project's retention basin." CB II would like to clarify that storm water runoff originating on the BEP II site will be routed to the retention basin approved and constructed as part of BEP and the BEP II project is not proposed to have a retention basin. Similarly in the section headed "Drainage Channels" Staff writes "non-contact runoff from the project site and upgradient land is routed to the retention basin in the southeast corner of the site." CB II clarifies that the approved and constructed retention basin is in the southern portion of the BEP site.	4.9-37
16	The section headed "Retention Basin Sizing" contains Staff's assertion the retention basin does not have sufficient capacity to handle a 100 year 24 hour rainfall event. CB II reiterates that the BEP retention basin sizing calculations have been approved by all appropriate authorities and that the BEP retention basin is correctly	4.9-38

	designed to accommodate runoff from the 100 year flood for the entire 152 acre BEP site and 1.75 acres of upgradient land.	
17	In the section headed "Linear Facilities" Staff notes "A project description of the final transmission line route will allow staff to complete the analysis of potential erosion impacts related to construction of off-site transmission facilities." CB II comments all BEP II project linear facilities are contained within the Site.	4.9-40
18	The section headed "Summary of Stormwater and Erosion Control" Staff writes that "The Applicant has not submitted a draft operational SWPPP for review." and that "Staff review of the operational SWPPP is necessary to fully analyze potential impacts related to storm water runoff, erosion, and soil and groundwater contamination." CB II notes it does not expect an operational SWPPP will be required for the BEP II project. The BEP II operational storm water control facilities will be integrated with and part of the BEP storm water facilities. BEP is not required to submit an operational SWPPP as the facility is designed such that no storm water leaves the site. (This comment also applies to the sections headed "Soils" on page 4.9-67 and "Stormwater" on pages 4.9-68 4.9-71)	4.9-40 4.9-67
19	CB II disagrees with Staff's characterization of its water supply and its flawed legal analysis of California Water Law. A detailed discussion is attached. (See Attachment Soil and Water 2)	4.9-41 through 4.9-64 and 4.9-69 through 4.9-79
20	In the section headed "Surface Hydrology" Staff recommends that the retention basin design be revised to include an emergency spillway or outlet structure. Retention basin designs to accommodate a 100 year 24 hour storm have been approved. The approved design does not include an emergency spillway or outlet structure. No revision to add such features is necessary and none will be executed. As described above, the retention basis design and construction was approved by the CPM, CBO and various design engineers as part of the BEP compliance process. Staff should review this information which is contained in the CPM files for BEP.	/
21	In the section headed "Possible Alternatives to the Proposed Water Supply" Staff writes that "After accounting for lost power generation, the incremental effect on the cost of power production is only about 6/100 to 12/100 of a	4.9-73

	cent per KWH higher (assuming power values ranging from $30 to $60 per MWH) to implement dry cooling compared to the proposed project." CB II believes the economic analysis prepared by Staff in Appendix A is incorrect and will submit a separate evaluation of Appendix A.	

SOIL AND WATER RESOURCES

CB II Comments on Staff Proposed Conditions of Certification

SOIL and WATER 1: The project owner shall comply with all of the requirements of the General NPDES Permit for Discharges of Storm Water Associated with Construction Activity. The project owner shall develop and implement a Storm Water Pollution Prevention Plan for the construction of the entire project (construction SWPPP). The project owner shall submit copies to the CPM of all correspondence between the project owner and the RWQCB regarding this permit.

Verification: The project owner shall submit copies to the CPM of all correspondence between the project owner and the RWQCB about the General NPDES permit for the Discharge of Storm Water Associated with Construction Activities within 10 days of its receipt (when the project owner receives correspondence from the RWQCB) or within 10 days of its mailing (when the project owner sends correspondence to the RWQCB). This information shall include copies of the Notice of Intent and Notice of Termination for the project.

CB II Comment:
CB II accepts the proposed comment as written.

SOIL and WATER 2: Prior to beginning any site mobilization activities for any project element, the project owner shall obtain CPM approval for a site-specific Drainage, Erosion and Sedimentation Control Plan (DESCP) that addresses all project elements and ensures protection of water quality and soil resources. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in off-site flooding potential, meet local requirements, include legible drawings, details and complete narrative and identify all monitoring and maintenance activities. No later than 60 days prior to start of any site mobilization, the project owner shall submit a copy of the plan to Riverside County and the City of Blythe for review and comment. Any comments shall be provided to the CPM within 30 days of receipt of the plan. The plan must be approved by the CPM prior to start of any site mobilization activities. The plan shall be consistent with the grading and drainage plan as required by **Condition of Certification CIVIL-1** and may incorporate by reference any SWPPP developed in conjunction with any NPDES permit.

Verification: No later than 60 days prior to the start of any site mobilization for any project element, the project owner shall submit the DESCP to the CPM for review and approval. During construction, the project owner shall provide a report in the monthly compliance report on the effectiveness of the drainage, erosion and sediment control activities and the results of monitoring and maintenance activities. Once operational, the project owner shall provide in the annual compliance report information on the results of monitoring and maintenance activities.

SOIL AND WATER RESOURCES

CB II Comment:
We request Staff to implement Soils & Water 2 from the BEP Conditions of Certification to maintain consistency between the projects.

SOIL and WATER 3: The project owner shall comply with all of the requirements of the General NPDES Permit for Discharges of Storm Water Associated with Industrial Activity. ~~The project owner shall develop and implement a Storm Water Pollution Prevention Plan for the operation of BEP II (operation SWPPP).~~ The project owner shall submit copies to the CPM of all correspondence between the project owner and the RWQCB related to this permit.

Verification: The project owner shall submit copies to the CPM ~~of the operational SWPPP prior to commercial operation and~~ all correspondence between the project owner and the RWQCB about the General NPDES permit for Discharge of Storm Water Associated with Industrial Activity within 10 days of its receipt (when the project owner receives correspondence from the RWQCB) or within 10 days of its mailing (when the project owner sends correspondence to the RWQCB). This information shall include a copy of the Notice of Intent and Notice of Termination.

CB II Comment:
CB II accepts the condition with the above modifications. BEP II will have its storm water retention system integrated with that for BEP. The BEP II design will be similar to that for BEP in that all storm water will be directed to an on site (the BEP site) retention pond. The BEP project was not required to submit an operational SWPPP; similarly, neither should BEP II be required to.

SOIL and WATER 4: The project owner shall comply with all of the requirements of the RWQCB to discharge wastewater to the project's evaporation ponds. The project owner shall maintain RWQCB Waste Discharge Requirements for these ponds, and shall not discharge any waste to the evaporation ponds without final WDRS in place. The project owner shall report to the CPM any notice of violation, cease and desist order, cleanup and abatement order, or other enforcement action taken by the RWQCB related to the WDRs within 10 days of notice by the RWQCB. The project owner shall describe all actions taken to correct violations and operate the project in compliance with WDRs permit conditions. The project owner shall provide verification from the RWCQB that any violations have been resolved to the satisfaction of the RWQCB within 10 days of such determination.

Verification: Final RWQCB WDRs must be received by the CPM prior to start of commercial operation and/or discharge of waste to the ponds. The project will not discharge wastewater to the ponds without WDRs in place at any time.

SOIL AND WATER RESOURCES

CB II Comment:
Although CB II agrees with the Staff's proposed condition as written, we request Staff to implement Soils & Water 9 from the BEP Conditions of Certification in order to maintain consistency between the two projects.

SOIL and WATER 5: The on-site septic system shall be designed and operated to prevent any adverse impacts to water quality. Sixty days prior the start of commercial operation and/or discharge of waste to the septic system the project owner shall provide the CPM with verification from Riverside County and the City of Blythe that the septic system design and operational plan comply with County an City standards. Waste shall not be discharged to the septic system without these verifications being provided to the CPM.

Verification: No later than sixty days prior to start of commercial operation and/or discharge of waste to the septic system the project owner shall submit the verifications from the County and City to the CPM.

CB II Comment:
CB II accepts the Staff's Proposed Condition as written.

ATTACHMENT 1

TO

SOIL AND WATER

COMMENTS

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE
GENERAL INFORMATION FORM FOR
WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

I. FACILITY INFORMATION

A. Facility:

Name: Blythe Energy Phase II			
Address: 15770 West Hobsonway			
City: Blythe	County: Riverside	State: CA	Zip Code: 92226
Contact Person: Robert Looper		Telephone Number: 208.331.1898	

B. Facility Owner:

Name: Caithness Blythe II, LLC			Owner Type (Check One) 1. ☐ Individual 2. ☑ Corporation
Address: 565 Fifth Avenue, 28th and 29th Floors			3. ☐ Governmental Agency 4. ☐ Partnership
City: New York	State: NY	Zip Code: 10017	5. ☐ Other:
Contact Person: Larry Carpenter		Telephone Number: 212.921.9099	Federal Tax ID: 52-2315574

C. Facility Operator (The agency or business, not the person):

Name: Same as Owner			Operator Type (Check One) 1. ☐ Individual 2. ☑ Corporation
Address:			3. ☐ Governmental Agency 4. ☐ Partnership
City:	State:	Zip Code:	5. ☐ Other:
Contact Person:		Telephone Number:	

D. Owner of the Land:

Name: Caithness Blythe II, LLC			Owner Type (Check One) 1. ☐ Individual 2. ☑ Corporation
Address: 565 Fifth Avenue, 28th and 29th Floors			3. ☐ Governmental Agency 4. ☐ Partnership
City: New York	State: NY	Zip Code: 10017	5. ☐ Other:
Contact Person: Larry Carpenter		Telephone Number: 212.921.9099	

E. Address Where Legal Notice May Be Served:

Address: Caithness Blythe II, LLC; 565 Fifth Avenue, 28th and 29th Floors		
City: New York	State: NY	Zip Code: 10017
Contact Person: Larry Carpenter		Telephone Number: 212.921.9099

F. Billing Address:

Address: Caithness Blythe II, LLC, 565 Fifth Avenue, 28th and 29th Floors		
City: New York	State: NY	Zip Code: 10017
Contact Person: Maureen Rodriguez		Telephone Number: 212.921.9099

FILE COPY

108-081-X035

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE GENERAL INFORMATION FORM FOR WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

II. TYPE OF DISCHARGE

Check Type of Discharge(s) Described in this Application (A or B):

☑ A. WASTE DISCHARGE TO LAND ☐ B. WASTE DISCHARGE TO SURFACE WATER

Check all that apply:

- ☐ Domestic/Municipal Wastewater Treatment and Disposal
- ☑ Cooling Water
- ☐ Mining
- ☐ Waste Pile
- ☐ Wastewater Reclamation
- ☐ Other, please describe: _____
- ☐ Animal Waste Solids
- ☐ Land Treatment Unit
- ☐ Dredge Material Disposal
- ☐ Surface Impoundment
- ☑ Industrial Process Wastewater
- ☐ Animal or Aquacultural Wastewater
- ☐ Biosolids/Residual
- ☐ Hazardous Waste (see instructions)
- ☐ Landfill (see instructions)
- ☐ Storm Water

III. LOCATION OF THE FACILITY

Describe the physical location of the facility.

1. Assessor's Parcel Number(s)
Facility: 824-101-012, 824-101-013
Discharge Point: 824-101-012

2. Latitude
Facility: 33 deg 36' 36.35" N
Discharge Point: 33 36' 36.35" N

3. Longitude
Facility: 114 deg 41' 16.73" W
Discharge Point: 114 41' 16.73" W

IV. REASON FOR FILING

- ☑ New Discharge or Facility
- ☐ Change in Design or Operation
- ☐ Change in Quantity/Type of Discharge
- ☐ Changes in Ownership/Operator (see instructions)
- ☐ Waste Discharge Requirements Update or NPDES Permit Reissuance
- ☐ Other: _____

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Name of Lead Agency: California Energy Commission

Has a public agency determined that the proposed project is exempt from CEQA? ☑ Yes ☐ No

If Yes, state the basis for the exemption and the name of the agency supplying the exemption on the line below.

Basis for Exemption/Agency: Functionally Equivalent Process / California Energy Commission

Has a "Notice of Determination" been filed under CEQA? ☐ Yes ☑ No

If Yes, enclose a copy of the CEQA document, Environmental Impact Report, or Negative Declaration. If no, identify the expected type of CEQA document and expected date of completion.

Expected CEQA Documents:

☑ EIR ☐ Negative Declaration

Expected CEQA Completion Date: August 2004

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE
GENERAL INFORMATION FORM FOR
WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

VI. OTHER REQUIRED INFORMATION

Please provide a COMPLETE characterization of your discharge. A complete characterization includes, but is not limited to, design and actual flows, a list of constituents and the discharge concentration of each constituent, a list of other appropriate waste discharge characteristics, a description and schematic drawing of all treatment processes, a description of any Best Management Practices (BMPs) used, and a description of disposal methods.

Also include a site map showing the location of the facility and, if you are submitting this application for an NPDES permit, identify the surface water to which you propose to discharge. Please try to limit your maps to a scale of 1:24,000 (7.5' USGS Quadrangle) or a street map, if more appropriate.

VII. OTHER

Attach additional sheets to explain any responses which need clarification. List attachments with titles and dates below:

Please see the enclosed Information in Support of a Report of Waste Discharge prepared by Power Engineers Collaborative, February 2004.

You will be notified by a representative of the RWQCB within 30 days of receipt of your application. The notice will state if your application is complete or if there is additional information you must submit to complete your Application/Report of Waste Discharge, pursuant to Division 7, Section 13260 of the California Water Code.

VIII. CERTIFICATION

"I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name: Larry Carpenter Title: Executive Vice President

Signature: [signature] Date: 2-19-04

Larry Carpenter

FOR OFFICE USE ONLY

Date Form 200 Received:	Letter to Discharger:	Fee Amount Received:	Check #:

Form 200(6/97)

ATTACHMENT 2

TO

SOIL AND WATER

COMMENTS

POWER ENGINEERS COLLABORATIVE, Inc.
6682 W. Greenfield Ave.
Suite 109
Milwaukee, WI 53214
(414) 475-4550

February 19, 2003

PEC 106-032-002

Ms. Michelle Ochs
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

Subject: **Information in Support of a Report of Waste Discharge for Blythe Energy Project Phase II**

Dear Ms. Ochs:

On behalf of our client, Caithness Blythe II, LLC, I am pleased to submit *Information in Support of a Report for Waste Discharge* for the Blythe Energy Phase II project. This is a revision to the *Supporting Document for a Report of Waste Discharge* submitted by Caithness Blythe II in May of 2002.

Also enclosed is a completed Application/Report of Waste Discharge, Form 200, for the Blythe Energy Phase II project.

I have enclosed two copies of each document for your use.

If you have any questions or comments on the enclosed information, please contact me at 414.475.4550.

Sincerely,

Robert Gavahan
Power Engineers Collaborative

Enclosures (2)

cc: File
B. Pfanner, California Energy Commission
G. Conby, CB II
T. Cameron, CB II
S. Galati, CB II
B. Looper, CB II

PEC

California Regional Water Quality Control Board
Colorado River Basin Region

Terry Tamminen
Secretary for Environmental Protection

73-720 Fred Waring Drive, Suite 100, Palm Desert, California 92260
(760) 346-7491 • Fax (760) 341-6820
http://www.swrcb.ca.gov/rwqcb7

Arnold Schwarzenegger
Governor

March 19, 2004

Robert Gavahan
Power Engineers Collaborative
6682 W. Greenfield Ave.
Milwaukee, WI 53214

RE: COMMENTS ON REVISED REPORT OF WASTE DISCHARGE FOR BLYTHE ENERGY PROJECT PHASE II, CAITHNESS BLYTHE II, RIVERSIDE COUNTY

A document titled "Information in Support of a Report of Waste Discharge (ROWD) for Blythe Energy Project Phase II" was received in this office. Prepared by Power Engineers Collaborative for Caithness Blythe II, LLC., the ROWD describes the proposed Blythe Energy Phase II (BEP II) project. The report, dated February 2004, is a revision to a similar document submitted in May of 2002.

After reviewing the revised ROWD, Regional Board staff has the following comments.

1. Pursuant to Title 27 of the California Code of Regulations, designs for all surface impoundments must be signed by a Professional Engineer or Engineering Geologist certified by the State of California.

2. Section 2.3 - At least three ground water monitoring wells (one up-gradient and two down-gradient) are required for this project.

3. Section 4.0 Pond Cleanout Plan and Appendix B - Propose a time interval or, preferably, a maximum operating level for the removal of accumulated sludge in the ponds.

The above comments should be addressed in an addendum or revision to the ROWD. If the addendum or revision is found to be satisfactory, Regional Board staff will send a letter to Caithness Blythe II stating the ROWD is complete. Regional Board staff will then prepare draft Waste Discharge Requirements for the BEP II project.

If you have any questions, please call me at (760) 776-8962 or Liann Chavez at (760) 776-8945.

Michele Ochs
MICHELE OCHS
Associate Engineering Geologist

MO/jr

cc: Larry Carpenter, Caithness Blythe II
Bill Pfanner, California Energy Commission

File: 7B 33 2021 002, Blythe Energy II

POWER ENGINEERS COLLABORATIVE, LLC.
6682 W. Greenfield Ave
Suite 109
Milwaukee, WI 53214
(414) 475-4550

March 29, 2004

PEC 106-032-004

Ms. Michelle Ochs
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

Subject: **Response to Comments on Revised Report of Waste Discharge for Blythe Energy Project Phase II, Caithness Blythe II, Riverside County**

Dear Ms. Ochs:

On behalf of our client, Caithness Blythe II, LLC, I am pleased to submit a revision to *Information in Support of a Report for Waste Discharge* for the Blythe Energy Phase II project. This revises the report submitted to you on February 19, 2004, and incorporates responses to the comments in your letter of March 19, 2004. As you agreed, only those pages of the February 19 report that have been changed are being submitted. You should replace the sheets from the February 19 submittal that have been revised with the attached sheet. Also, Appendix C, Proposed Maximum Solids Levels, is new and should be added to the report.

Section 1.9.9 of the report has been revised to state that the designs for the evaporation ponds will be signed by a Professional Engineer or Geologist registered in the State of California.

Section 1.9.9 has also been revised to include recommended maximum solids levels for the evaporation ponds. Two maximum solids levels are proposed. The expected normal operating scenario is to have both ponds in service to accept discharge. For this type of operation a maximum solids level of 9 feet above the bottom of the pond has been selected. A solids level of 9 feet will provide several years of operation before solids will have to be removed from a pond and will provide one year of operation with discharge to the second pond only before the second pond reaches its maximum operating level of 13 feet. The period of one year is adequate to remove the accumulated solids from the out of service pond and return it to service. Appendix C has been added to the report to provide more details on the selection of the maximum solids levels.

Section 2.3 has been revised to state that there will be two downgradient monitoring wells. Figure 2 has been revised to show a second downgradient monitoring well. (Figure 2 is an annotated copy of PEC drawing 108-GA-0001, Rev. B).

Additionally, the title page and table of contents, sheet iii, have been revised and should be replaced.

I have enclosed two copies of each revised or new sheet for your use.

FILE COPY

PEC

108-032.004

March 29, 2004

Sheets to replace or add:

Title Page	Replace
Table of Contents, page iii	Replace
Page 7	Replace
Page 8	Replace
Page 10	Replace
Figure 2	Replace
Appendix C (four pages)	Add

If you have any questions or comments on the enclosed information, please contact me at 414.475.4550.

Sincerely,

R. Gavahan

Robert Gavahan
Power Engineers Collaborative

Enclosures (2)

cc: File
B. Pfanner, California Energy Commission
G. Conby, CB II
T. Cameron, CB II
S. Galati, CB II
B. Looper, CB II

ATTACHMENT 3

TO

SOIL AND WATER

COMMENTS

108-091-006

Revision to
INFORMATION IN SUPPORT OF A REPORT OF WASTE DISCHARGE

BLYTHE ENERGY PHASE II PROJECT
BLYTHE, CALIFORNIA

FEBRUARY 2004
Revision 01, MARCH 2004

PREPARED FOR:

CAITHNESS BLYTHE II, LLC

PREPARED BY:

POWER ENGINEERS COLLABORATIVE, LLC
6682 West Greenfield Avenue
West Allis, WI 53214
414.475.4550

SUBMITTED TO:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION
72-720 FRED WARING DRIVE
SUITE 100
PALM DESERT, CALIFORNIA 92260

PEC
POWER ENGINEERS COLLABORATIVE

INFORMATION IN SUPPORT OF A REPORT OF WASTE DISCHARGE

BLYTHE ENERGY PROJECT PHASE II
BLYTHE, CALIFORNIA

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1.0 INTRODUCTION AND BACKGROUND

Caithness Blythe II, LLC has applied to the California Energy Commission, CEC, for certification to construct a 520 Megawatt natural gas-fired, combined cycle, power plant located just north of Interstate 10 and approximately 3 miles west of the City of Blythe, Riverside County, California (Figures 1 and 2). The project is the Blythe Energy Project Phase II (hereinafter referred to as BEP II). The combined cycle power plant is designed to be highly efficient and clean burning with state-of-the-art technology producing greatly reduced NOx and CO emissions compared with traditional designs. Triple pressure heat recovery steam generators (HRSG) and exhaust stacks equipped with emissions control systems further enhances the environmental protection design.

The BEP II Project is located entirely within the site boundary of the constructed Blythe Energy Project (BEP). The BEP II power island is located approximately 800 feet south and 950 feet west of the BEP power island. BEP II will interconnect with the regional electrical transmission grid at the Buck Boulevard Substation, located at the northeast corner of the BEP site. Natural gas will be supplied to the BEP II project from an interconnect on site with the existing gas supply line to BEP.

This document provides additional information in support of a Report of Waste Discharge for the Blythe Energy Project Phase II; it is a revision of the Supporting Document for a Report of Waste Discharge submitted by CB II in May of 2002. The May 2002 supporting document was prepared by Greystone Environmental; this document replaces the May 2002 document. The proposed discharge pertains to the planned release of wastewater effluent to two lined evaporation ponds associated with the power plant. This information is being supplied to the RWQCB for their preparation of Waste Discharge Requirements (WDR's) and Monitoring and Reporting Program (MRP) for the facility. The following provides additional details regarding the plant setting and design.

1.1 Discharger Information

The project is owned by Caithness Blythe II, LLC, Owner/Operator (hereinafter referred to as the discharger), 565 Fifth Avenue, 28th and 29th Floors, New York, NY, 10017. The contact for the project is Mr. Robert Looper, (208) 331.1898.

1.2 Facility Location

The BEP II Project is located on privately owned land in Blythe, eastern 1/2 of the NW 1/4, Section 33, T6S, R22, in Riverside County. The site is located approximately 0.25 miles north of the Interstate 10 Freeway and directly east of the Blythe Airport.

1.3 Site Hydrogeology

The BEP II Project is located within the Colorado River Basin. Hydrogeology in the project area is described in the United State Geological Survey (USGS) Professional Paper 486-G "Geohydrology of the Parker-Blythe-Ciobola Area, Arizona and California" (1973). In addition, the California Department of Water Resources (DWR) and USGS have performed a number of other studies. The USGS and DWR collected hydrologic date in the site vicinity until 1978. Data since that time has not been collected on a systematic basis by any agency.

Ground water in the site vicinity exists primarily under unconfined (water table) conditions. Flow is generally from north to south. Ground water discharge occurs as a combination of Colorado River water to the east, subsurface inflow from the Chuckwalla Basin and both surface and subsurface inflow from Palo Verde Valley drainage systems to the west, and recharge from precipitation infiltration.

Ground water levels in the area fluctuate seasonally in response to the state of the Colorado River, precipitation infiltration, and applied irrigation water. The average depth to ground water beneath the

subject site is approximately 89 feet below ground surface (bgs). However, where perched aquifers are present, depth to ground water may be as shallow as 6 to 7 feet bgs. The average thickness of the aquifer in the site vicinity is 300 feet.

1.3.1 Beneficial Ground Water Uses

The beneficial uses of waters in the Colorado Hydrological Unit are as follows:

a. Municipal Supply (MUN)
b. Industrial Supply (IND)
c. Agricultural Supply (AGR)

1.3.2 Site Groundwater Use

Local ground water is used as a water supply for the BEP II Project. The source of all water will be from two (2) installed on-site ground water production wells (designated as Well No. 1 and Well No. 2 on Figure 2, the Site Plan). These wells will be equipped with pumps expected to be submerged at a depth of approximately 400 to 420 feet bgs and sized to convey 3000 GPM each. The current static ground water level is approximately 89 feet bgs. Based on an average specific capacity of 50 GPM per foot, each well is expected to be capable of producing 3000 GPM with a draw-down of approximately 60 feet.

The ground water in the project area is of drinking water quality. The water is generally either sodium sulfate or sodium chloride enriched and has an average Total Dissolved Solids (TDS) concentration of 1,000 mg/L. Ground water must be treated prior to use in the site processes.

1.4 Site Surface Hydrology and Storm Water Runoff

The BEP II site is located on an alluvial terrace formed by deposition within the lower Colorado River basin. The Colorado River drainage basin includes portions of seven states, and a significant region of northern Mexico. A complex of dams, in both the upper and lower basins, completely control the river for the purposes of water supply, flood storage, hydropower generation, and recreational uses.

BEP II is not within the immediate vicinity of any significant surface water bodies. The Colorado River is approximately 9 miles east of the site. A Palo Verde Irrigation District (PVID) drainage channel lies along the base of the Palo Verde Mesa approximately one mile east of the BEP II site. The BEP II site is located on the first tier of the Palo Verde Mesa, and lies 70 feet above the 100 year floodplain, well removed from any potential hazard zone. During heavy precipitation events, stormwater flows off the Palo Verde Mesa to the PVID drainage system.

McCoy Wash is an ephemeral stream that passes about 3 miles north of the site and drains approximately 171 square miles of mostly undeveloped desert land (USDA, 1991). The BEP II site does not lie within the McCoy Wash watershed. McCoy Wash is subject to flooding in response to severe storm events. Flood zones presented by the USDA in the Final Watershed Plan Environmental Impact Statement/Report McCoy Wash Watershed, show that the Project site is outside of the 100-year floodplain of this channel.

The BEP II site is relatively flat with a slight slope. The general slope of the site is from northwest to southeast. Some grading has occurred at the site following deposition of fill from excavation of the BEP evaporation ponds and retention basin; additional grading will occur at the site during the BEP II construction program. The grading, however, will not significantly alter the current slope or drainage pattern. Stormwater runoff from paved areas will be directed to an unlined retention basin located south of the BEP evaporation ponds. This retention basin is sized to contain all of the estimated runoff from on-site locations. Storm water discharge from the project site is regulated under the statewide Amended

General Industrial Activities Storm Water Permit. The BEP II Project will utilize Best Management Practices (BMP's) as the primary means of controlling erosion at the site.

1.4.1 Beneficial Surface Water Uses

The beneficial uses of waters in the Colorado River are as follows:

a. Municipal Supply (MUN)
b. Industrial Supply (IND)
c. Agricultural Supply (AGR)
d. Ground Water Recharge (GWR)
e. Aquaculture (AQ)
f. Water Contact Recreation (REC I),
g. Noncontact Water Recreation (REC II)
h. Warm Water Habitat (WARM)
i Wildlife Habitat (WILD)
j. Preservation of Rare, Endangered or Threatened Species (RARE)
k. Cold Freshwater Habitats

1.5 Site Geology

The project site is located in the Colorado Desert Section of the Basin and Range physiographic province. Basins contain several thousands of feet of alluvium including unconsolidated to weakly consolidated sand, silt and gravel. In particular, the project site falls within the lower Colorado River Basin and is located on an alluvial terrace formed by historic river aggradation and degradation.

No active or potentially active faults are known in the project area. The nearest active fault is the southern segment of the San Andreas Fault, located about 60 miles southwest of the project area near the Salton Sea. The potentially active Blythe Graben Fault is located approximately 10 miles north of the site.

1.6 Site Topography

The project site is relatively flat sloping gently to the southeast. Natural elevation ranges from 330 to 360 feet above mean sea level. Much of the site has been graded for construction activities. Site topography is shown in Figure 3.

1.7 Climatology

The climate of the Blythe area is typical of a desert region with minimal precipitation, evaporation greatly exceeding precipitation, hot temperatures with a wide daily temperature range, and low relative humidity. Temperature and humidity climatology measured at the Blythe Airport is provided in Table 1.

TABLE 1
Blythe Airport Temperature and Humidity Climatology
Period of Record 1948 to 1998

Month	Average Max Temp. (°F)	Average Min Temp. (°F)	Average Mean Temp (°F)	Extreme Max Temp (°F)	Extreme Min Temp (°F)	Average Number of Days Temp Above 90°F	Morning (10:00 A.M.) Relative Humidity (percent)[1]	Evening (10 P.M.) Relatively Humidity (percent)[1]
January	66.3	41.3	53.8	89	20	0.0	40	48
February	72.0	45.5	58.7	93	22	0.2	35	46
March	78.2	50.0	64.1	100	30	2.8	30	41
April	86.5	56.6	71.6	107	38	11.7	25	35
May	94.8	64.1	79.4	114	43	23.4	23	32
June	104.4	72.5	88.5	123	46	28.9	22	29
July	108.4	80.9	94.6	123	62	30.9	32	38
August	106.6	80.1	93.3	120	62	30.6	35	42
September	101.2	73.0	87.1	121	53	28.4	35	44
October	89.8	60.9	75.3	111	27	17.6	32	43
November	75.7	48.5	62.1	95	27	0.6	34	48
December	66.6	41.3	53.9	87	24	0.6	41	52
Annual Average	**87.5**	**59.6**	**73.5**	-	-	**175.0**	**32**	**42**

Source: Western Regional Climate Center, Reno, NV. Internet www.wrcc.dri.edu September 1999.
[1] Relative Humidity for Yuma, AZ. Source Western Regional Climate Center

Precipitation

The average annual precipitation is 3.7 inches. Approximately 42 percent of this precipitation occurs from December through March, and is associated with winter storms from the Pacific Ocean. Another 25 percent occurs in July and August, associated with the "monsoonal" flow of moisture from the Pacific Ocean and the Gulf of California. Precipitation exceeds 0.01 inches for only 18 days in an average year. Monthly average precipitation, monthly maximum precipitation, 24 hour maximum precipitation, average number of days precipitation exceeds 0.01 inches, average number of days precipitation exceeds 0.1 inches, and snowfall is provided in Table 2.

Table 2
Blythe Airport Precipitation Climatology Period of Record 1948 to 1998

Month	Monthly Average Precip (inches)	Monthly Average Evaporation (inches)	Monthly Maximum Precip. (inches)	24-Hour Maximum Precip. (inches)	Average Number of Days Precip. Greater Than 0.01 inches	Average Number of Days Precip. Greater Than 0.10 inches	Snowfall (inches)
January	0.50	3.8	2.48	1.64	3	1	0
February	0.40	4.8	3.03	1.66	2	1	0
March	0.35	7.7	2.15	1.04	2	1	0
April	0.17	10.1	3.00	2.67	1	0	0
May	0.02	13.0	0.22	0.22	0	0	0
June	0.02	14.4	0.91	0.91	0	0	0
July	0.26	15.5	2.44	1.40	1	1	0
August	0.68	13.7	5.92	3.00	2	1	0
September	0.37	10.8	2.14	1.90	1	1	0
October	0.28	7.8	1.89	1.61	1	1	0
November	0.20	4.8	1.84	0.95	1	0	0
December	0.46	3.6	3.33	1.42	2	1	0

Evaporation

Yuma is the closest location where evaporation data have been collected. Yuma is within the same meteorological regime as Blythe. The projected annual evaporation is 110 inches, which significantly exceeds the annual rainfall of 3.7 inches. The monthly average evaporation is provided in table 2.

1.8 Land Uses

Land uses at and surrounding the facility consist of the following:

a) Formerly and currently irrigated agricultural parcels
b) Blythe Municipal Airport (adjacent to the west)
c) Various maintained residences and outbuildings
d) Scattered grazing land
e) Open desert land
f) Riparian and wildlife habitat

1.9 Facility Description and Waste Stream Identification

The BEP II Project will be a natural gas-fired power generation facility. The discharger proposes to discharge non-hazardous industrial wastewater from two different waste streams, into two lined evaporation ponds. The primary waste stream will be discharged from the circulating water treatment plant system designed to recover essentially all water for reuse, leaving only a low flow discharge to the evaporation ponds. The primary waste stream will be brine, with very high concentrations of total dissolved solids (TDS) and other non-hazardous constituents. The second waste stream to the ponds will be clear water from the oil water separator. The waste streams are schematically illustrated along with approximately flow rates in Figure 4.

Discharge flow of wastewater is expected to be minimal because the water in the system will be treated and recycled to provide total consumption (essentially discharge), of water under optimal operating conditions. In general, the average flow rate from the primary waste stream will be approximately 13

gallons per minute (gpm). The wastewater will be sent to the evaporation ponds where the remaining water will be evaporated.

Local groundwater will be used as a water supply for the BEP II Project. The quality of local groundwater is satisfactory for use in the water cooling systems, but must be treated prior to use as makeup water for the water-steam cycle as well as for potable water for the plant.

1.9.1 Circulating Water System Blowdown

Cooling water is circulated through the steam turbine condenser where it removes heat from the plant's water steam cycle to the cooling tower where the heat is rejected to atmosphere. Sodium hypochlorite or equivalent will be used as a biocide in the cooling tower to prevent biological growth and will remain as acids and amines in the wastewater. Adjusting the pH of the cooling tower basin water with sulfuric acid minimizes scale buildup in the condenser but will create sulfate salts in the wastewater. An organic phosphate solution may also be fed into the circulating water system as a sequestering agent in an amount proportional to the circulating water blowdown in order to further minimize scaling. Water, or blowdown, is removed from the cooling tower basin on a continuous basis to maintain approximately seven cycles of concentration of the raw, or makeup, water. The makeup water replaces water that leaves the circulating water system through evaporation, blowdown, and drift. The cooling tower blowdown is the feed to the water treatment system brine concentrator.

1.9.2 Heat Recovery Steam Generator (HRSG) Blowdown

A steam-driven turbine generator at the power block produces electrical energy; steam is provided by two HRSGs. Water is removed from the HRSG system on a continuous basis during plant operation to help maintain water chemistry within acceptable parameters in the water steam system; this is HRSG blowdown. HRSG blowdown is routed to the main cooling tower basin where it provides part of the makeup water requirement for the circulating water system. Treated, demineralized, water is provided by the water treatment system to makeup for the HRSG blowdown.

1.9.3 Air Inlet Chiller Cooling Tower Blowdown

BEP II will include a combustion turbine inlet chilling system to improve plant performance during hot weather. The inlet chilling system will be a water cooled mechanical refrigeration system; cooling water for the inlet chilling system will be provided by a cooling tower (separate from the cooling tower described above in the Circulating Water System). In a manner similar to the circulating water system, blowdown will be continuously removed from the tower basin to maintain an acceptable concentration of raw water constituents in the system. It is anticipated that the inlet chilling cooling tower will operate at seven cycles of concentration. Inlet chilling system blowdown will be directed to the main cooling tower basin where it will form part of the makeup requirement for the circulating water system. A chemical dosing program similar to that described above for the circulating water system will be used to control biological growth and scale.

1.9.4 Water Treatment Systems

BEP II will be provided with water treatment facilities to supply potable and demineralized water to the plant. The water treatment equipment consists of reverse osmosis (RO) and electrodeionization (EDI) units in series. Raw water, or groundwater, will be the feed to the ROs. The ROs will produce two streams, product and reject. The reject is directed to the cooling tower basin where it forms part of the makeup for the circulating water system. The product provides

potable water for plant use and serves as the feed to the EDI. The EDI units also generate product and reject streams. The reject stream is directed to the cooling tower basin where it provides part of the makeup water requirement for the circulating water system. The EDI product is demineralized water. Demineralized water is used as makeup for the water steam cycle/HRSGs. Under steady state conditions feed to the water treatment system is approximately 98 gpm; this will produce 10 gpm of potable water, 50 gpm of demineralized water, and 38 gpm of combined reject. The reject wastewaters generated by the RO and EDI units contain relatively high concentrations of total dissolved solids (TDS); these are constituents of the raw water supply.

1.9.5 Brine Concentrator

BEP II will be provided with a brine concentrator, or evaporator, to process main cooling tower blowdown. The brine concentrator works on a mechanical vapor compression cycle. The brine concentrator receives cooling tower blowdown as feed. The products are brine and distillate. The feed rate to the brine concentrator is approximately 416 gpm. Under conditions of maximum cooling tower evaporation, distillate production will be approximately 398 gpm and brine production will be approximately 18 gpm. Brine production decreases and distillate production increases with decreasing main cooling tower evaporation rates (the feed rate remains constant). The annual average brine production rate is approximately 13 gpm. Distillate is returned to the cooling tower for makeup and brine is directed to the evaporation ponds.

1.9.6 Plant Drains-Oil/Water Separator

Miscellaneous plant drainage will consist of area wash down, sample drainage, condensation, and drainage from facility equipment areas. Water from these areas will be collected in a system of floor drains, sumps, and pipes and routed to the wastewater collection system. This water will be routed through an oil/water separator as required to prevent oil from entering the water system. Discharges from the oil water separator are infrequent. This water will be directed to the evaporation ponds as waste or main cooling tower for makeup.

1.9.7 Solid Waste

Solid waste will also be generated in the evaporation ponds as precipitated salts and sludge generated from the brine effluent. These wastes will be removed whenever necessary by drying the pond completely and removing the majority of the dried solids. These wastes will be primarily composed of the minerals that were dissolved in the ground water source. These wastes will be disposed of properly at an appropriate off-site facility.

1.9.8 Sanitary Wastewater

Sanitary wastewater is designated as those wastes generated from sinks, toilets, and other sanitary facilities. Sanitary wastes will be disposed of on site by a septic system and leach field.

1.9.9. Description of the Evaporation Ponds

Title 27, California Code of Regulations (CCR), includes prescriptive standards for waste management unit construction and allows for engineered alternatives to such standards. CB II is planning on constructing two lined Class II surface impoundments (evaporation ponds) which meets the alternatives standards set forth in Title 27. Pursuant to Title 27, designs for the BEP II evaporation ponds will be signed by a Professional Engineer or Engineering Geologist certified by the State of California.

The evaporation ponds will be used for the disposal of process wastewater (brine) primarily generated as concentrated cooling fluids. The two approximately 3.25-acre ponds will have a

combined evaporation surface of approximately 6.5 acres. The storage capacity at high water level is approximately 62 acre-feet allowing for minimum freeboard clearance. The liner system is constructed as follows:

a) A 60 mil HDPE upper liner. The HDPE liners shall consist of a smooth geomembrane type polyethylene resin;

b) A drainage net that consists of a geosynthetic drainage material consisting of two sets of HDPE strands to from a diamond shaped net to allow for low-resistance fluid flow;

c) A lower 60 mil HDPE liner;

d) An un-reinforced geosynthetic clay mat consisting of a layer of sodium bentonite between two geotextiles; and

e) Compacted subgrade

Construction of two evaporation pond cells will allow either cell to be taken out of service whenever necessary to allow complete evaporation and removal of the brine residue (sludge). Brine sludge will be profiled and disposed of at an appropriate off-site facility in accordance with local, state and federal regulations.

The inside depth of the pond provides the following:

- Sufficient depth to provide storage of discharge water and brine sludge for approximately two years of operation (per pond) without operator removal of sludge or water. (Pond cleanout will not necessarily be required after two years of discharge to a pond. Approximately 10 acre-feet of water can evaporate from an off-service pond in a year to reduce its level while the other pond is in service.)
- Sufficient additional depth to provide for normal water level variation throughout the year due to variations in plant inflow, rainfall, and the evaporation rates.
- Sufficient additional depth to provide for a limited increase in water level that would occur when the evaporation rate is 90 percent of the mean evaporation rate for two years in a row.
- Sufficient additional depth to provide limited storage capacity for increased inflow when the brine concentrator is inoperable.
- Sufficient additional depth to provide for a limited increase in water level during pond maintenance.
- Sufficient additional depth to provide for the 100 year rainfall on top of the maximum water level resulting from water level variations.
- Sufficient freeboard above the maximum water level to provide the greater of 24 inches or the height of the wind run-up plus 12 inches.

CB II proposes maximum operating levels (solids level) be assigned for the ponds. Separate maximum operating levels proposed for the case when both cells are available to accept discharge and the case where one of the cells is out of service. With both cells available to accept discharge the proposed maximum solids level is 9 feet above the bottom of the ponds. With only one cell in service the proposed maximum solids level is 10 feet above the bottom of the ponds.

See Appendix B for a discussion of pond operational limitations. See Appendix C for a discussion of proposed maximum solids levels.

2.0 DETECTION MONITORING PROGRAM

Pursuant to Section 20240 of Title 27, CB II is proposing a detection monitoring program for the evaporation ponds consists of monitoring the Point Level Leak Detection System (LDS), lysimeters and monitoring wells for the presence of liquids and or constituents of concern. The detection monitoring program is presented in the following paragraphs of Section 2 and the monitoring program and frequency of testing is described in Section 3 of this report.

CB II believes that for any leakage detecting program it is important that the constituents being tested have the following properties:

- Analytes are present in the waste stream at concentrations about the analytical method detection level;
- Analytes are present at concentrations above background level for the same analytes in the groundwater being monitored;
- Analytes are mobile enough to be transported through the unsaturated soil column to be detectable at depth in groundwater; and
- Analytes pose a potential threat to groundwater quality or to the environment in general.

The parameters of Total Dissolved Solids (TDS), chloride, and sulfate are the most useful for detecting leakage from ponds containing brine solutions. These parameters are relatively non-reactive, and are the most pervasive elevated constituents n the effluent. It is very unlikely that groundwater would be impacted by leakage from the ponds without exhibiting a readily apparent increase in these parameters. These parameters are also the best to use when verifying that moisture collected from the LDS is the result of leakage from the pond liner.

2.1 Leakage Collection and Recovery / Point Level Leak Detection System

CB II is planning on constructing a leakage collection and recovery system (LCRS) between the upper and lower HDPE membrane liners of both ponds. The LCRS will consist of 4-inch diameter perforated PVC pipe located within a geotextile envelope and surround by pea gravel. Water that leaks from the upper liner will be directed towards the perforated pipe. The pipe will be sloped slightly to allow collected water to drain towards a collection point.

A Point Level Leak Detection System (PLLDS) will be constructed to monitor for the presence of moisture within the collection point. The PLLDS will consist of a nominal 4-inch diameter, near horizontal (sloped a minimum of 1 percent), PVC pipe connected to the perforated leak detection pipe near the point of collection. The 4-inch diameter PVC pipe will have a right-angle bend to allow it to rise vertically to surface just outside of the pond liner system. The vertical rise will be enclosed within a 6-inch steel casing that will protrude above grade on the pond access road as a leakage detection monitoring station. The access tube will be secured at surface with a cap and locking system and protected with a bentonite and concrete annular seal.

The LCRS and PLLDS systems are illustrated in Figures 6, 9 and 10. Because of the design of the evaporation ponds, any leakage from the upper liner will be detected in the LCRS and PLLDS systems. These systems are therefore the primary means of leak detection. If liquid is detected within the system, a sample of the liquid can be collected for analysis under the Evaluation Monitoring Program (EMP).

2.2 Vadose Zone Monitoring

CB II is proposing to install up to four liquid capture lysimeters for vadose zone monitoring. All lysimeters will be set to a depth just below the base of the pond. For this project a 24-inch long 1920F1 Pressure-Vacuum Soil Water Sampler (or lysimeter) or equivalent will be installed. Under relatively moist soil water conditions an approximately one-liter sample volume can be obtained from the 24-inch long 1920F1. Samples can be collected by attaching a pressure vacuum hand pump to the lysimeter discharge line. Sample times will be wholly dependent on the soil water content.

The lysimeters will be installed in separate boreholes at locations just outside the evaporation ponds on the dike walls. The lysimeters will be installed within protected flush-mounted, traffic-ready well boxes. An annular seal will be placed to prevent surface water from entering the system. The well boxes will be set in concrete at surface and sloped slightly to prevent flooding.

A typical lysimeter is depicted in Figure 11. A copy of a typical manufacturer's literature for the lysmeter is included in Appendix D.

2.3 Groundwater Monitoring

One up-gradient and ~~one~~ two down gradient groundwater monitoring wells are planned for this project. ~~Neither~~None of the proposed groundwater monitoring wells currently exist at the site.

Depth to groundwater is approximately 89 feet bgs. Because of the high demand for water resources in the Blythe area and arid conditions, monitoring wells will likely be screened 5 vertical feet above static water level and 15 to 20 feet below static levels to allow for future aquifer drawdown conditions.

Wells will be constructed using 4-inch diameter Schedule 40 PVC. A typical well construction is shown in Figure 12. Screen slot size will be determined in the field based on lithology. Wells will be installed using mud or air rotary or other appropriate drilling technologies. Because of the high silt content in the sediments, hollow stem auger drilling will not be selected as a technology.

Wells will be constructed in accordance with state and local laws and in accordance with the Department of Water Resources (DWR) California Well Standards. The drilling firm will have a valid California C-57 license. All boreholes will be logged by a geologist in the field working under the direct supervision of a California Registered Geologist, per Title 27. Copies of the driller's logs will be submitted to the DWR at the completion of the program and copies of the geologist's logs will be provided to the RWQCB in a letter report.

2.3.1 Proposed Groundwater Statistical Method

Pursuant to Title 27, CB II is proposing a statistical analysis of groundwater monitoring data to detect the earliest possible indication of a statistically significant release from the evaporation ponds. The monitoring parameters, which CB II believes are the best to detect evidence of a release are outlined in Section 3 of this submittal.

A flow diagram of the statistical approach is shown in Figure 13. Statistical procedures are consistent with the U.S. Environmental Protection Agency Guidance Document, "Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance, April, 1992 and similar documents.

The proposed statistical approach is to calculate intra-well tolerance intervals. This method analyzes the variance of groundwater quality data within each monitoring well to determine if there is a statistically significant change in groundwater quality. Specifically, an UTL will be calculated using background well data at the beginning of the project. This is considered valid as

the ponds are not in place at this time and therefore no impacts caused by their operation have occurred. The UTL will be updated annually, or to verify that an exceedance has occurred.

The UTL is calculated for a coverage of 95 percent of the distribution and a probability (tolerance coefficient) of 95 percent, using the following equation:

UTL=X+ks, where $k = (t_{n-1.95})\,(1+1/n)^{1/2}$

X = mean

S = standard deviation

K = multiplier for one-sided tolerance interval

$T_{n-1.95}$ = student t-statistic for 95th upper percentile of the t-distribution with n-1degrees of freedom.

N = number of samples

Technically, intra-well analysis eliminates the need for upgradient well comparisons. However, the upgradient well will still be used in this program as a means of verifying analytical results.

This method is noted in 20400 State of California Water Resource Control Board, CCR Chapter 3, Title 27.

3.0 PROPOSED EVALUATION MONITORING PROGRAM

Pursuant to Section 20425 of the California Code of Regulations (CCR) Title 27, CB II is proposing a preliminary Evaluation Monitoring Program (EMP) based on the following background information and scenarios.

3.1 Background Information

The proposed evaporation ponds at the BEP II Project will consist of an upper 60-mil thick HDPE (polyethylene resin) geomembrane over a geosynthetic drainage mat. The drainage mat will consist of two sets of HDPE strands forming a diamond-shaped structure. The mat will rest on a lower 60-mil HDPE membrane liner, which in turn will be placed over a clay liner consisting of sodium bentonite panels, sandwiched between two geotextiles. The subgrade below the ponds will be compacted.

The ponds will be sloped such that any leakage occurring from the upper liner will be directed to a non-woven geotextile envelope containing pea gravel and a perforated PVC leak detection pipe that will direct moisture towards a collection point. A point level leakage detection system will be installed at the collection point.

Potential leakage from the ponds will be quickly observed as moisture in the point level detection system. Considering the design of the ponds, it is unlikely that a catastrophic failure will occur to both liners simultaneously.

BEP II monitoring of the evaporation pond will consist of the following:

- Evaporation Pond Monitoring
- Evaporation Sludge Monitoring
- Groundwater Monitoring
- Leachate Collection and Recovery System Monitoring
- Vadose Zone Monitoring

Groundwater and vadose zone monitoring locations will be provided in the Water Quality Monitoring and Response Plan. The type of samples taken, the frequency of sampling, the constituents to be sampled, and other information regarding the sampling program is provided in the following sections.

Sample collection, storage, and analysis will be performed in accordance with the U.S. EPA approved methods or Standard Methods. If an alternative method of analysis is performed, the method will be submitted to the RWQCB for approval prior to use. All analyses will be performed using a Sate of California approved laboratory. All records and instrument calibrations for the sampling program will be maintained at the BEP II site.

3.2 Evaporation Pond Monitoring

One grab wastewater sample will be taken from the pond. This sample will be taken near the point of discharge and the grab sample will be taken semi-annually beginning during the first quarter of plant operation. The types of analyses to be performed on the grab sample are provided as follows:

- Total Disolved Solids (mg/l)
- Specific Conductance (micro-mhos)
- pH

- Antimony (mg/l)
- Arsenic (mg/l)
- Barium (mg/l)
- Cadmium (mg/l)
- Total Chromium (mg/l)
- Cobalt (mg/l)
- Copper (mg/l)
- Lead (mg/l)
- Mercury (mg/l)
- Nickel (mg/l)
- Selenium (mg/l)
- Zinc (mg/l)
- Chloride (mg/l)
- Sulfate (mg/l)

3.3 Sludge Sampling

An annual grab sample of the sludge will be taken from the evaporation pond basin. The types of analyses to be performed on the sludge sample are provided as follows:

- Antimony (mg/kg)
- Arsenic (mg/kg)
- Barium (mg/kg)
- Beryllium (mg/kg)
- Cadmium (mg/kg)
- Total Chromium (mg/kg)
- Cobalt (mg/kg)
- Copper (mg/kg)
- Lead (mg/kg)
- Mercury (mg/kg)
- Molybdenum (mg/kg)
- Nickel (mg/kg)
- Selenium (mg/kg)
- Silver (mg/kg)
- Thallium (mg/kg)
- Vanadium (mg/kg)
- Zinc (mg/kg)

3.4 Groundwater Sampling

A groundwater sample will be taken from each monitoring well quarterly. The types of analyses to be performed are provided as follows:

- Total Dissolved Solids (mg/l)
- Specific Conductance (micro-mhos)
- pH
- Temperature
- Static Water Level
- Sulfate
- Chloride

3.5 Leachate Collection and Recovery System Sampling

The evaporation pond leachate collection and recovery system will be monitored on a weekly basis to check on the liner integrity. A log, with the date and person performing the inspection will be maintained on this visual inspection. If a leak is detected, the amount will be recorded. The top liner will not exceed a permeability of $1x10^{-11}$ cm/sec. If no leak occurs, or if the permeability of the top liner does not exceed $1x10^{-11}$ cm/sec, the RWQCB will be informed with the quarterly monitoring report. If the top liner has a permeability of greater than $1x10^{-11}$ cm/sec, it will be reported to the RWQCB immediately.

3.6 Vadose Zone Sampling

The vadose zone will be monitored on a quarterly basis for the detection of liquid in the unsaturated zone. A log, with the date and person performing the inspection, will be maintained on this inspection. If liquid is detected, the liquid will be tested for the following constituents and reported to the RWQCB immediately.

- pH
- Total Dissolved Solids (mg/l)
- Specific Conductance (mg/l)
- Chloride (mg/l)
- Sulfate (mg/l)

3.7 Reporting

BEP II will arrange the data in a tabular format and provide specific information indicating that the facility is operating in compliance with the discharge permit. The information provided to the RWQCB will include the following:

- The date, exact place, and time of sampling and measurements
- The individual who performed the sampling or measurements
- The date the analyses were performed
- The individual responsible for assuring the accuracy of the analyses
- The results of each analysis
- The analytical techniques or methods used

The results of any analysis performed more frequently than required under this discharge permit will be provided to the RWQCB with the Monitoring and Reporting Program. Additionally, monitoring reports will be certified and provided with the following statement:

> "I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations".

Quarterly monitoring reports shall be submitted to the Regional Board by January 15, April 15, July 15, and October 15 of each year. Annual monitoring reports shall be submitted to the Regional Board by January 15 of each year.

3.8 Catastrophic Release Scenario

It is unlikely that a pond will fail catastrophically and if more than one pond is in service, it is even less likely that two ponds would fail simultaneously. The worst-case scenario would be the sudden

catastrophic failure of a significant portion of a dike wall resulting in the release of the entire content of the evaporation pond at peak plant operations with the minimum allowable freeboard clearance. Because of the relatively flat terrain of the surrounding ground surface, a release from the ponds would result in a wide spreading of the contained brine solution.

If the entire content of the pond was released, several inches of standing water would result from the release with negligible evaporation. Soils near the surface of the site are dominantly silty sand. A reasonable porosity for a silty sand would be approximately 40 percent, however the hydraulic conductivity of a silty sand is 10^{-4} to 10^{-6} meters per second. Downward migration of water through soil may occur at less than 100 percent saturation. We have conservatively assumed downward migration will occur at 25 percent saturation. Based on our assumptions, we estimated that even 6-inches of standing water soaking into the ground would eventually migrate downward to a maximum depth of approximately 5 feet bgs. Considering that depth to groundwater is approximately 89 feet bgs, it is unlikely that the pond water would impact ground water beneath the site should a catastrophic failure occur.

3.8.1 Proposed Evaluation Monitoring Program for Catastrophic Dike Failure

Based on our assumed scenario for a dike wall failure, a conservative program for evaluation monitoring would consist of the following:

- Installation of approximately 8 to 10 borings to maximum depths of 15 feet bgs each using a hydraulic push-type drill rig. Soil samples would be collected at depths of approximately 5, 10 and 15 feet bgs. These depths will be adjusted in the field so that samples are collected within, and just below the zone of soil saturation (or partial saturation) and approximately 5 vertical feet below the first sample;

- Installation of two background soil samples for the purpose of establishing background soil chemistry conditions;

- Approximately 20 soil samples from the borings within the release area, and four soil samples from the two background locations would be analyzed for chloride and sulfate using ion chromatography, pH, and percent soil moisture by volume. Two of the affected area samples plus one of the background samples would also be tested for Title 22 metals;

- Installation of one vertical neutron soil moisture monitoring tube near the center of the release to monitor potential migration of the wetting front, if soil sampling indicates saturated or near saturated conditions exist. The sampling tube would consist of a 3-inch diameter Schedule 40 PVC casing with a bottom PVC end cap installed in a nominal 4.5-inch diameter soil boring to a depth of 20 feet bgs. The annular space around the soil moisture tube will be sealed at surface with bentonite and concrete. Soil moisture readings would be measured and recorded every 2 vertical feet using a neutron moisture probe on a bi-monthly basis for two months or until such time as it can be demonstrated that vertical infiltration of the released pond water has ceased; and

- Preparation of a report suitable for submittal to the Regional Water Quality Control Board and other involved agencies.

3.8.2 Proposed Evaluation Monitoring Program for a Suspected Liner Leak

If liquids are detected in either the LCRS or PLLDS systems, CB II will attempt to obtain an adequate volume of the liquid in order to test the liquid for the constituents of concern. At a minimum, the key leakage detection parameters of TDS, chloride and sulfate will be analyzed. Results of the water chemistry will be compared to the known chemistry within the ponds to determine if a leak has occurred.

CORRECTIVE ACTION PLAN

A Corrective Action Program (CAP) may be required pursuant to Section 20430 of Title 27 depending on the results of the Evaluation Monitoring Program (EMP). A formal CAP will be submitted to the RWQCB within the time frame specified by Title 27 following confirmation from the EMP that a release has occurred.

In general, confirmation of a significant release from an evaporation pond liner system will be addressed by removing liquid from the damaged pond. The liquid/brine solution will be either transferred to the other site pond or to an approved temporary containment vessel or cell. All solid waste accumulations within the pond will be removed, profiled, and disposed of offsite at an appropriate facility. If the leak in the liner can be located, accumulated solids will only be removed from the affected area as required to render repairs.

Following repair of the liner, physical tests will be conducted in the field to verify that the liner integrity is intact. The vadose monitoring system and LCRS / PLLDS systems will be monitored more frequently during the first few weeks of pond service following repairs.

Installation of soil borings and collection of soil samples may be performed to characterize the extent of soil impacts which may be caused by the release during the EMP. Soil sampling will include testing for soil moisture content, chloride and sulfate. If soil impacts are determined to exist, a risk assessment may be performed and reported to the RWQCB. However, it is more likely that the constituents of concern (essentially salts), will be found not to pose a risk to groundwater or the environment and therefore soil mitigation will be deferred and included under pond closure activities.

If a catastrophic failure occurs and a large volume of water is released from the pond to ground surface, soil remediation may be required. The CAP will most likely recommend soil washing as the appropriate remedial technology; however a variety of technologies will be assessed. If soil washing is selected, soils will be excavated and washed in a mobile treatment system. The wash water will be filtered to remove sediment and transferred to either an existing and operational pond or placed into temporary containers prior to offsite disposal. Cleaned soil will be dewatered and replaced as backfill into the open excavation.

4.0 POND CLEANOUT PLAN

Periodic cleanout of the ponds will be required during the life of the facility. The facility generates approximately 2.3 acre-feet of solids and 20 acre-feet of liquids, including precipitation, on average in one year of operation. Approximately 11.5 acre-feet of liquids will evaporate in an average year from each pond (Evaporation volume will vary with pond surface level, 11.5 acre feet is valid for standard evaporation rates and pond level at 5 feet above pond bottom). The combined pond evaporation capacity is greater that the liquid influent rate. It is anticipated that both ponds will be in service to provide the surface area required to evaporate the influent liquids. After several years of operation (five years would result in 2.9 feet of solids in each pond), one pond would be taken out of service for sludge removal while the other received all discharges. The in service pond could then have its accumulated sludge removed after transferring any free liquid to the cleaned pond. This process results in a temporary excess liquid inventory in the ponds. This excess liquid would be evaporated during the several years of discharge that would follow (the evaporation capacity is greater than the liquid influent rate by approximately 15% for the combined ponds).

The periodic cleanout process would be repeated as required during the life of the facility. The BEP II facility will undergo periodic major maintenance outages for periods of up to six weeks. To the extent practical, pond cleanout will be scheduled to be concurrent with scheduled maintenance outages. The interval between cleanouts may vary from that described above, a five year interval, based on plant operating history.

Were only one pond capable of receiving discharges, a 2-year service life for that pond would be available based on the pond starting level being approximately 4.5 feet above the bottom of the pond.

Calculations for brine accumulation were based on flow rate scenarios which are higher than what is likely to occur during normal plant operations.

CB II proposes the following procedure for pond cleaning,

1. Any free liquid in the pond to be cleaned will be removed, analyzed for hazardous waste characteristics, and discharged at an approved facility. A portion of the accumulated sludge will be mechanically removed using a dredge line, excavator, or similar equipment in order to extend the useable life of the pond. No attempts will be made to remove all of the accumulated sludge as doing so may compromise the integrity of the pond liner due to abrasion or tearing. Remaining sludge and any new accumulations will be mitigated during final closure of the ponds.

2. If only one useable pond is present at the time when cleaning is required, CB II will reserve the option of permitting a new pond and applying for closure of the filled pond. Permitting and construction of the new pond will be performed with adequate lead-time to allow for a smooth continuation of normal site operations. BEP II will attempt clean closure of the filled pond per the requirements of Title 27.

The decision of which of these options or possible alternative options are implemented will depend on actual prevailing site operational conditions.

5.0 POND CLOSURE / POST CLOSURE PLAN

The useful lifespan of the evaporation pond cells, with periodic cleanout, is expected to be a minimum of 30 years. Periodic maintenance of the ponds may further extend their usefulness. In accordance with CCR, Title 27, Article 3, Section 21400. SWRB - Closure Requirements for Surface Impoundments (C15: Section 2582), CB II is proposing the following actions:

1. Following suspension of plant operations, remaining free liquid within the ponds will be removed, analyzed for hazardous waste characteristics, and discharged at an approved facility.

2. CB II will attempt the Mandatory Clean-Closure Policy pertaining to surface impoundments as prescribed by Title 27. All residual wastes, including sludges and other precipitated materials shall be removed from the interior of the liner, profiled and disposed of at an approved offsite facility.

3. Liner materials and associated construction products will be removed, inspected for residual contaminants, and disposed of at an approved facility or delivered for beneficial re-use as may be appropriate at the time of decommissioning.

4. Remaining containment features including earthen berms and compacted subgrade will be tested for indications of environmental impairment, and if found to be "clean", will be graded and or tilled level.

5. If at the time of closure, it is determined that clean closure is infeasible, BEP II will submit a plan to the RWQCB for closure of the facility as a landfill pursuant to Chapter 3, Section 21090, Title 27, CCR.

A final closure plan will be submitted to the RWQCB prior to site decommissioning. CB II will submit materials appropriate for obtaining a Revised Report of Waste Discharge under Chapter 3, Sub-Chapter 5, Title 27, CCR.

If clean closure cannot be obtained, CB II will continue to perform post closure maintenance in accordance with Title 27. Monitoring of groundwater wells and vadose zone systems will continue during the performance period.

TABLE 3
WATER CHEMISTRY
Analytical Results for Blythe Energy Production Well #1 (PW-1)
and
Anticipated Effluent Composition (AEC)

General Minerals

Analyte	EPA Method	Reporting Limit	PW-1	AEC
Bicarbonate (as $CaCO_3$, mg/l)	600	10	180	NA
Calcium (mg/l)	600	0.25	45.5	8,305
Chloride (mg/l)	600	10	287	44,503
Copper (mg/l)	600	0.010	ND	NA
Fluoride (as $CaCO_3$, mg/l)	600	10	4.86	NA
Hydroxide (as $CaCO_3$, mg/l)	600	10	ND	NA
Iron (mg/l)	600	0.10	0.40	67
Magnesium (mg/l)	600	0.25	10.1	1,333
Manganese (mg/l)	600	0.010	ND	NA
Nitrate (as N)	600	0.1	0.1	5,902
Potassium (mg/l)	600	0.50	4.40	NA
Sodium (mg/l)	600	0.50	298	46,485
Sulfate	600	10	291	57,603
Zinc (mg/l)	600	0.010	ND	NA
Total Alkalinity (mg/l)	600	10	180	NA
Total Dissolved Solids (TDS)	600	10	1050	169,808
Surfactants (MBAS)	600	0.05	ND	NA
Hardness (Ca, Mg as $CaCO_3$)	600	10	147	NA
pH	600	pH Units	8.24	6.7

Title 22 Metals

Analyte	EPA Method	Reporting Limit	PW-1	AEC
Antimony (mg/l)	6010B	0.010	ND	NA
Arsenic (mg/l)	6010B	0.010	ND	NA
Barium (mg/l)	6010B	0.010	0.02	NA
Beryllium (mg/l)	6010B	0.010	ND	NA
Cadmium (mg/l)	6010B	0.010	ND	NA
Chromium (mg/l)	6010B	0.010	ND	NA
Cobalt (mg/l)	6010B	0.010	ND	NA
Copper (mg/l)	6010B	0.010	ND	NA
Lead (mg/l)	6010B	0.005	ND	NA
Mercury (mg/l)	7470A	0.002	ND	NA
Nickel (mg/l)	6010B	0.010	0.03	NA
Selenium (mg/l)	6010B	0.010	ND	NA
Silver (mg/l)	6010B	0.010	ND	NA
Thallium (mg/l)	6010B	0.010	ND	NA
Vanadium (mg/l)	6010B	0.010	ND	NA

PW-1 groundwater samples collected on December 6, 2001.
WDC values based on raw water analyses (Blythe Energy, LLC, October 2, 2001).
ND, not detected
NA, not analyzed

FIGURES

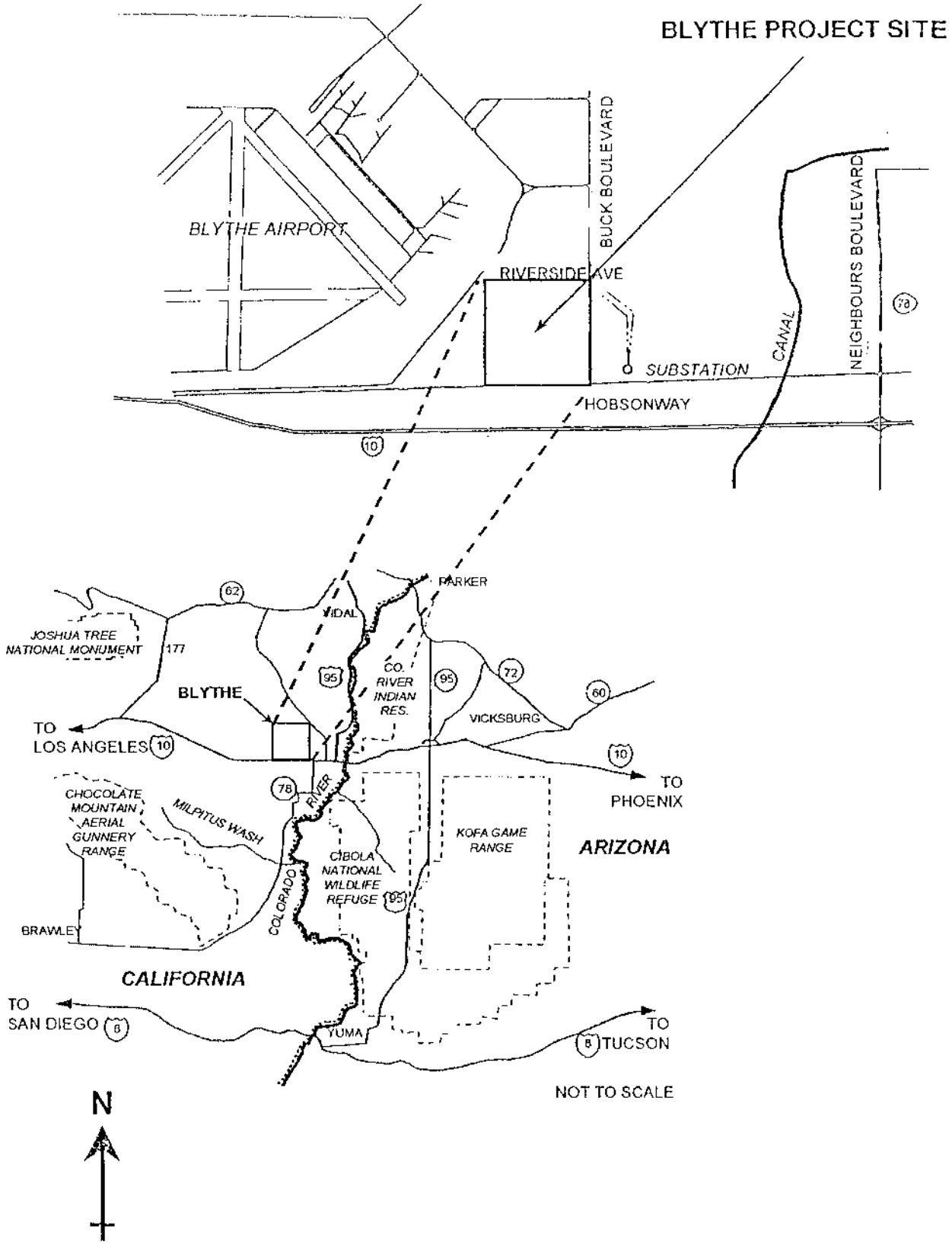
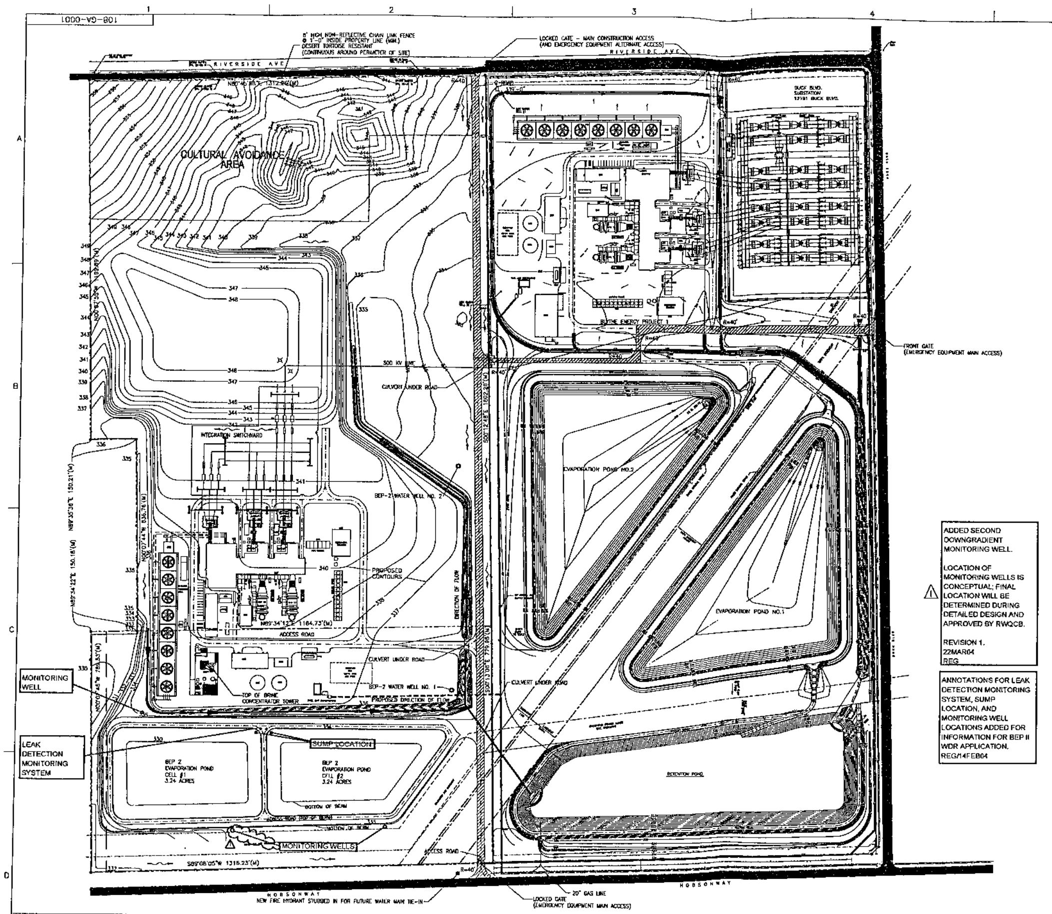


Figure 1
Site Location
Blythe Energy Phase II

See Drawing
108-GA-0001, Rev. B
Grading and Drainage Plan View
on following sheet

Figure 2
Site Plan
Blythe Energy Phase II



STRUCTURES

UBA	STRUCTURE FOR POWER CONTROL CENTER
UBE	STRUCTURE FOR MV-AUXILIARY POWER TRANSFORMER
UBF	STRUCTURE FOR GENERATOR TRANSFORMER
UCA	CONTROL ROOM BUILDING
UHA	HEAT RECOVERY STEAM GENERATOR
UHX	AMMONIA STORAGE AREA
UGA	RAW WATER STORAGE TANK
UGC	DEMINERALIZED WATER STORAGE TANK
UGU	STRUCTURE FOR EFFLUENT DISPOSAL
ULA	BOILER FEEDWATER PUMP HOUSE
UMA/UMB	GENERATOR BUILDING
UMY	PIPE AND CABLE BRIDGE
URA	COOLING TOWER STRUCTURE
URD	CIRCULATING WATER PUMP STRUCTURE
USA	INLET CHILLING EQUIPMENT
USC	FIRE PUMP HOUSE
USR	WASTE WATER TREATMENT AREA
UST	WORKSHOP / STORAGE AREA

LEGEND

- SURVEY MONUMENTS AND PROPERTY CORNER
- 500KV TRANSMISSION TOWER
- WELL
- DENOTES WETLANDS/MARSHY AREA
- TREE/EDGE OF WOODS
- FIRE HYDRANT
- PROPERTY LINE
- EMERGENCY EQUIPMENT MAIN ACCESS ROAD
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND ELECTRIC LINE
- FLARED END SECTION (FES)
- DRAINAGE DITCH
- 770 FINAL GRADE CONTOUR
- AGGREGATE DITCH CHECK

NOTES:

1. CONTOURS INDICATE PRELIMINARY DESIGN FOR GRADING. CONTOURS SUBJECT TO MODIFICATION BASED ON FINAL DESIGN.
2. PROPOSED STORMWATER DRAINAGE TO BE DIRECTED BY SWALES WITH CULVERTS UNDER ROAD CROSSINGS.
3. PROPOSED DIRECTION OF FLOW IS CONCEPTUAL. PLAN BASED ON EXISTING CONTOURS AND EXISTING BLYTHE ENERGY PROJECT.
4. FRONT GATE SHALL HAVE GREEN SLATS INSTALLED ON THEM TO BE CONSISTENT WITH THE SURROUNDING LANDSCAPE.
5. ALL EMERGENCY ACCESS ROADS WILL CONSIST OF 40' TURNING RADIUS AND CONSTRUCTED WITH ALL WEATHER ROAD SURFACES.

REV	DATE	DESCRIPTION	DWN	DGN	CHK	APP
B	02-04-04	ADDED 500KV TRANSMISSION TOWER LOCATIONS, REVISED INTEGRATION SWITCHYARD	SRG		REG	REG
A	02-19-03	ISSUED FOR PROJECT REVIEW COMMITTEE REVIEW	SRG	-	REG	REG

SCALE: 1"=140'-0"

WARNING: 0 1/2 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

D SIZE 36"x24"

Power Engineers Collaborative, L.L.C.
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BLYTHE ENERGY PROJECT PHASE II
BLYTHE, CALIFORNIA

GRADING AND DRAINAGE PLAN VIEW

DWG# 108-GA-0001 REV. B

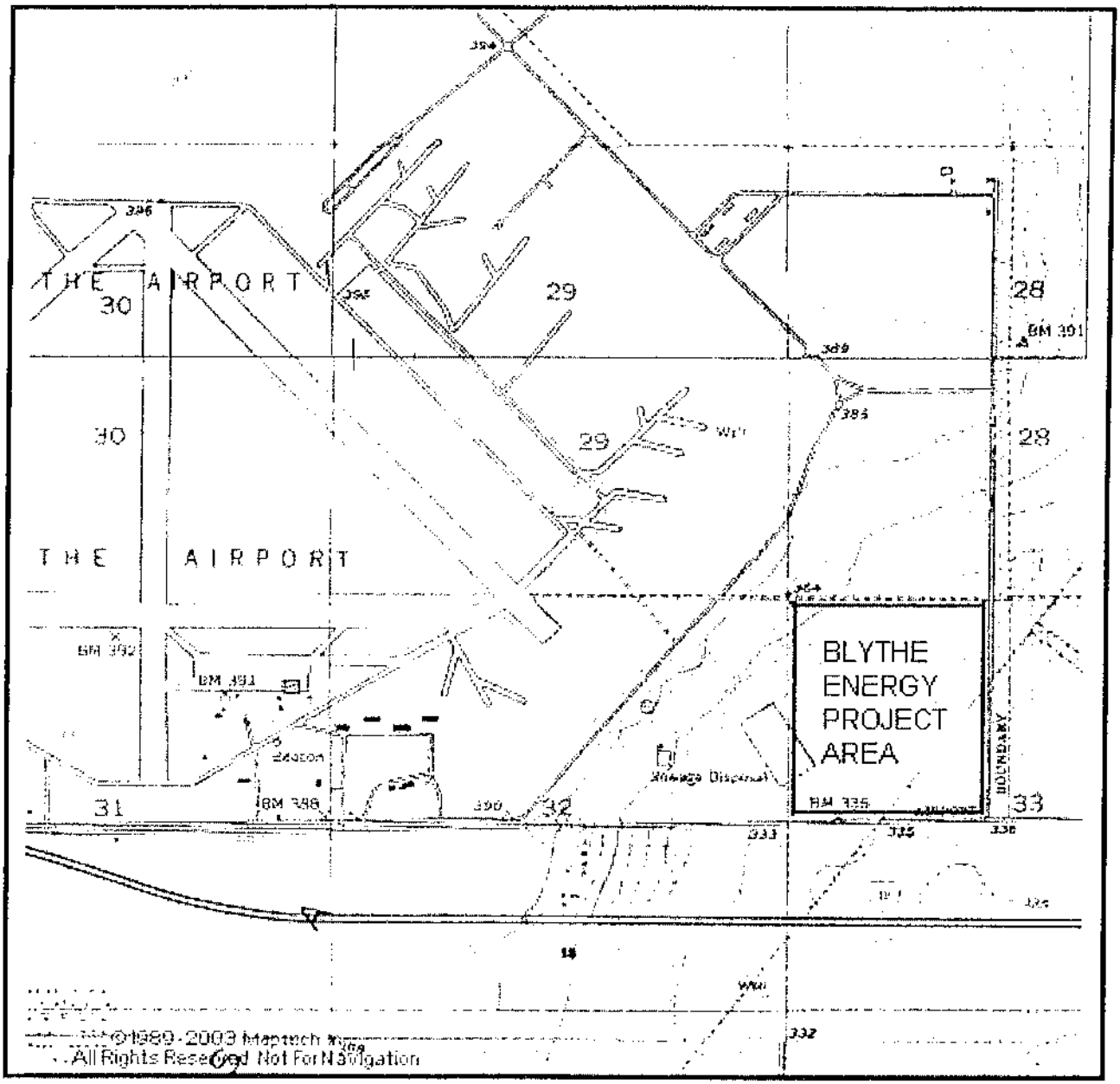


Figure 3
Site Topography
Blythe Energy Phase II

WATER BALANCE DIAGRAM FOR BLYTHE II PROJECT @ T = 59°F, 60% Relative Humidity

No Chilling and No Duct Firing

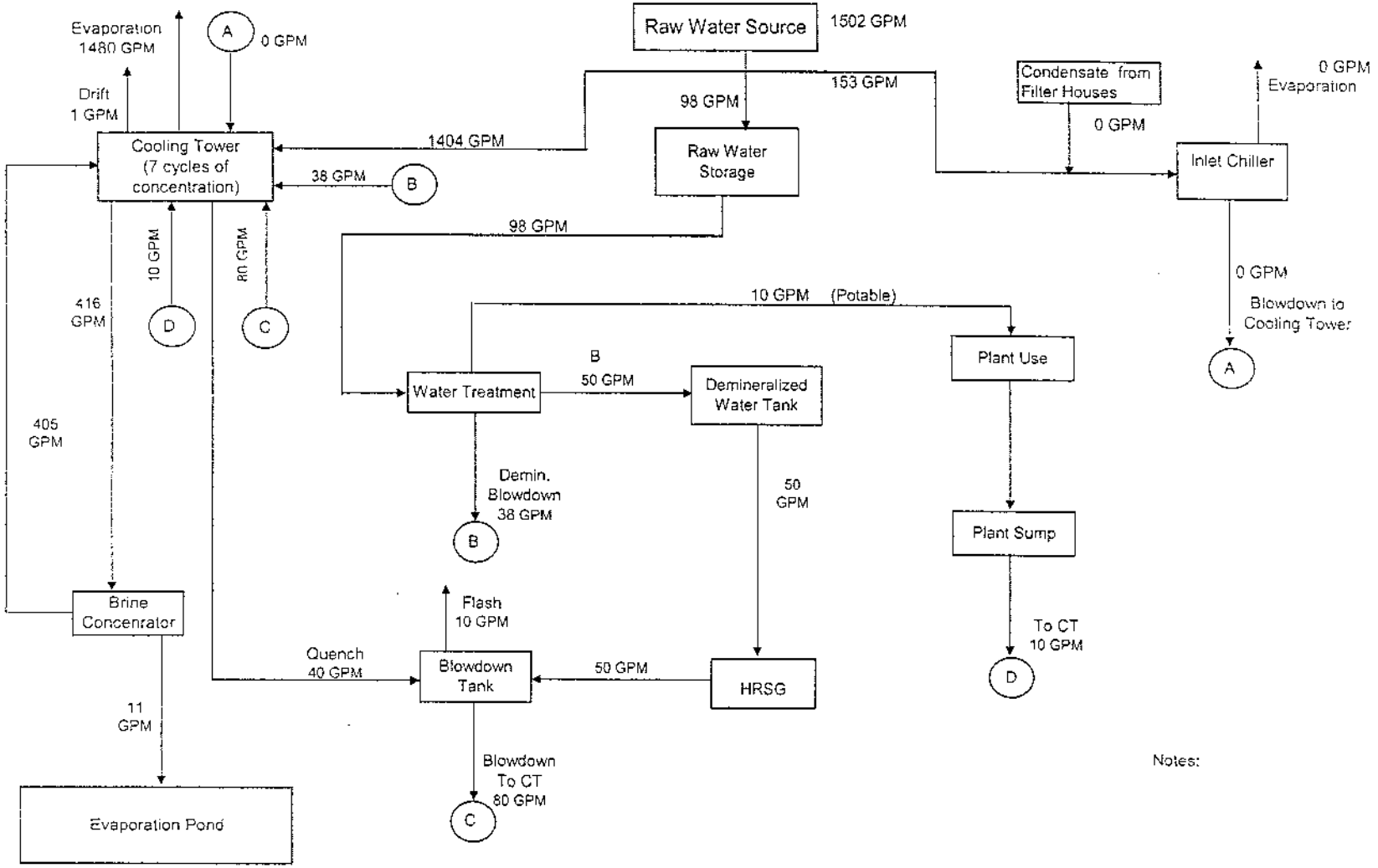


Figure 4-1
Water Balance at 59F
Blythe Energy Phase II

WATER BALANCE DIAGRAM FOR BLYTHE II PROJECT @ T = 110°F, 5%, Relative Humidity

With Inlet Chilling (Mechanical Chillers) and No Duct Firing

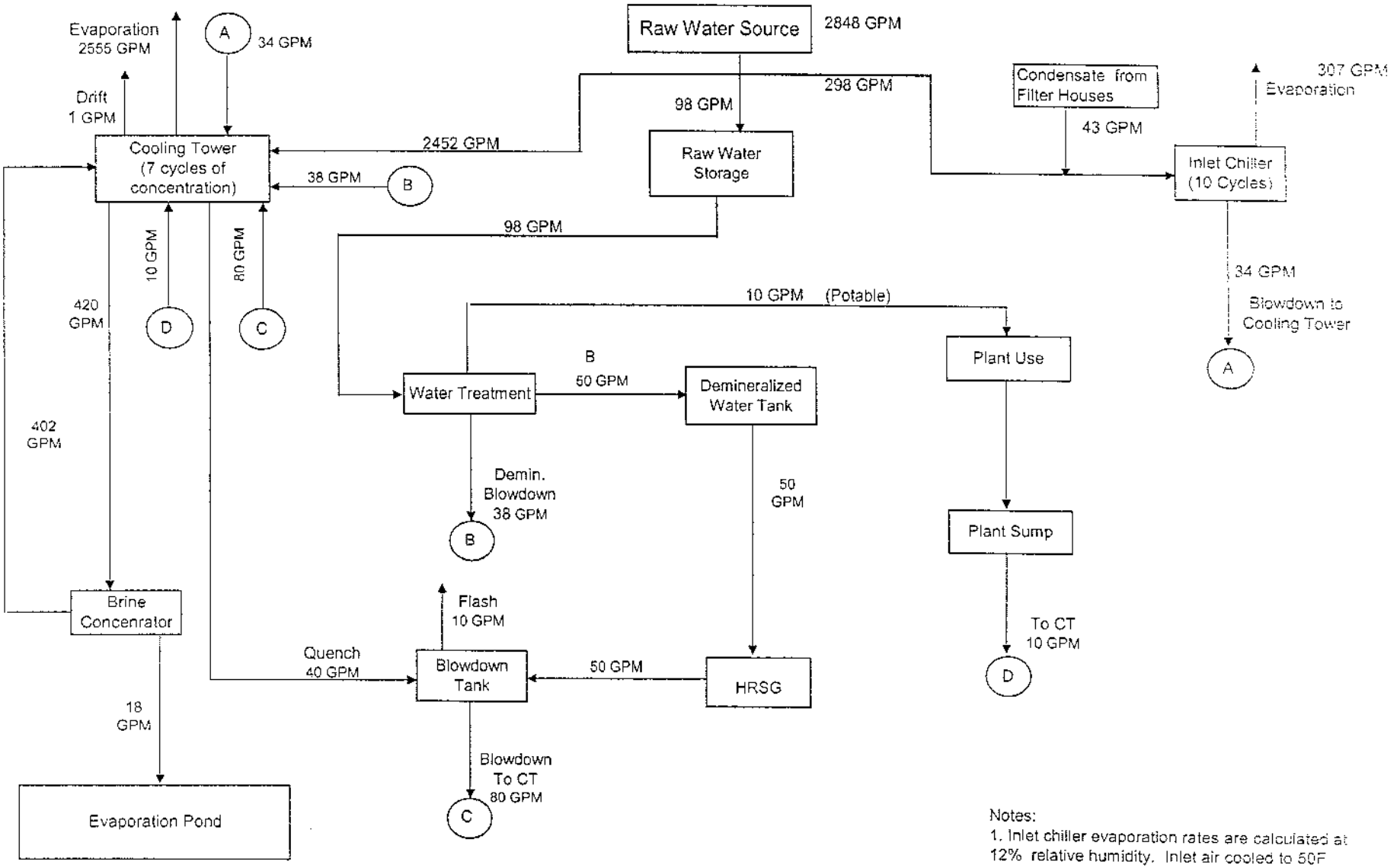


Figure 4-2
Water Balance at 110F
Blythe Energy Phase II

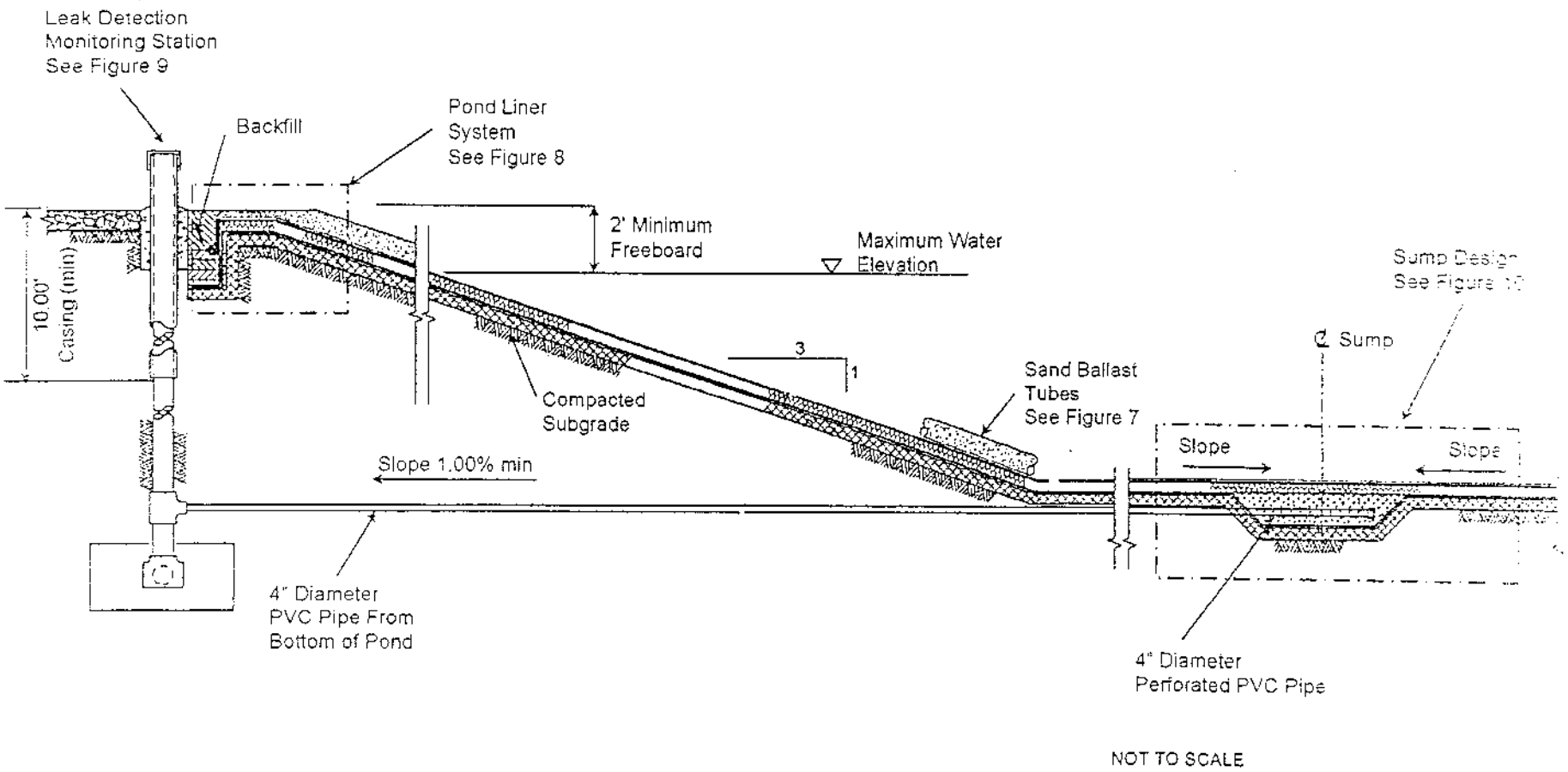


Figure 5
Evaporation Pond Cross Section - Typical
Blythe Energy Phase II

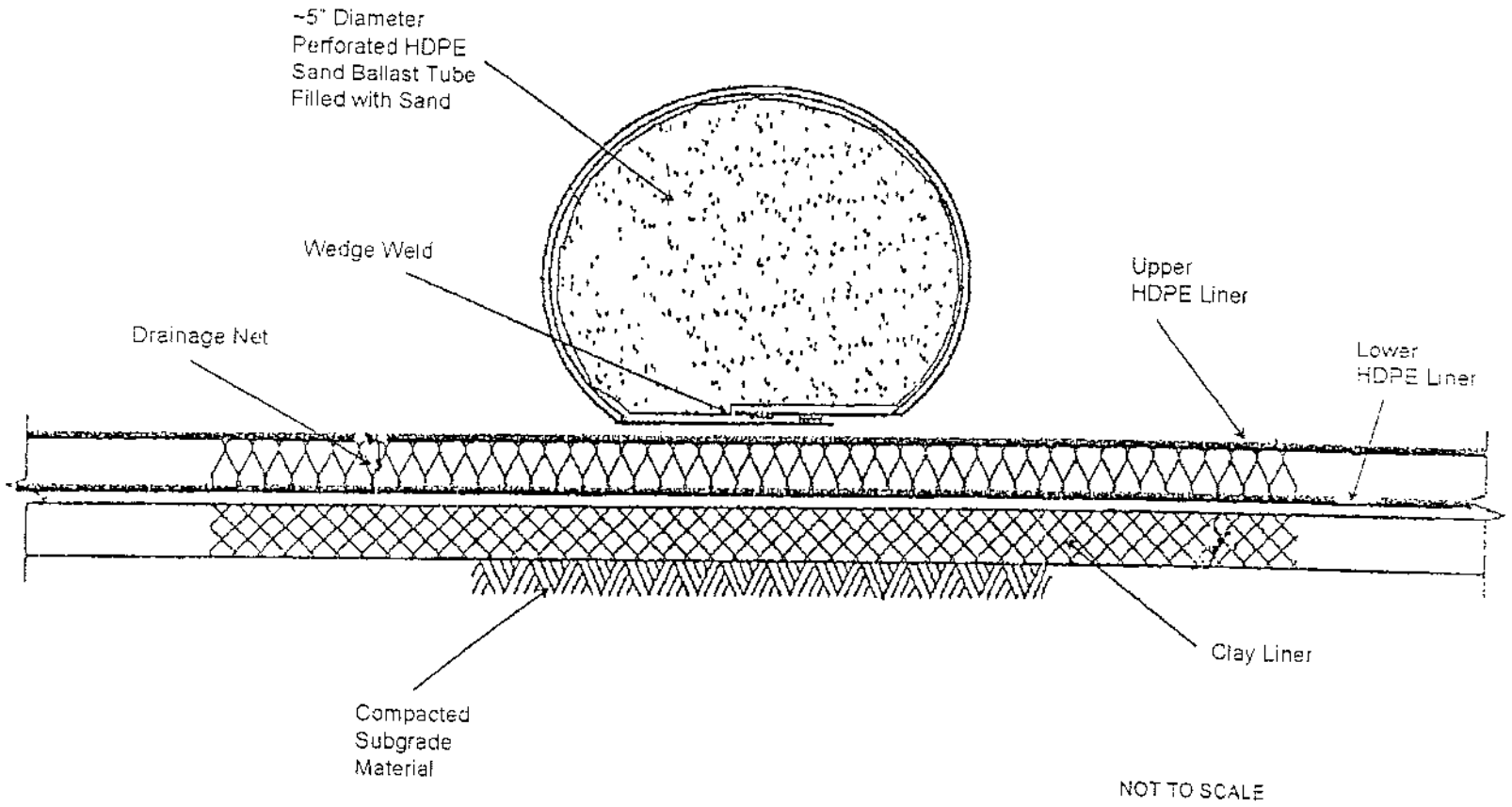


Figure 6
Sand Ballast Design - Typical
Blythe Energy Phase II

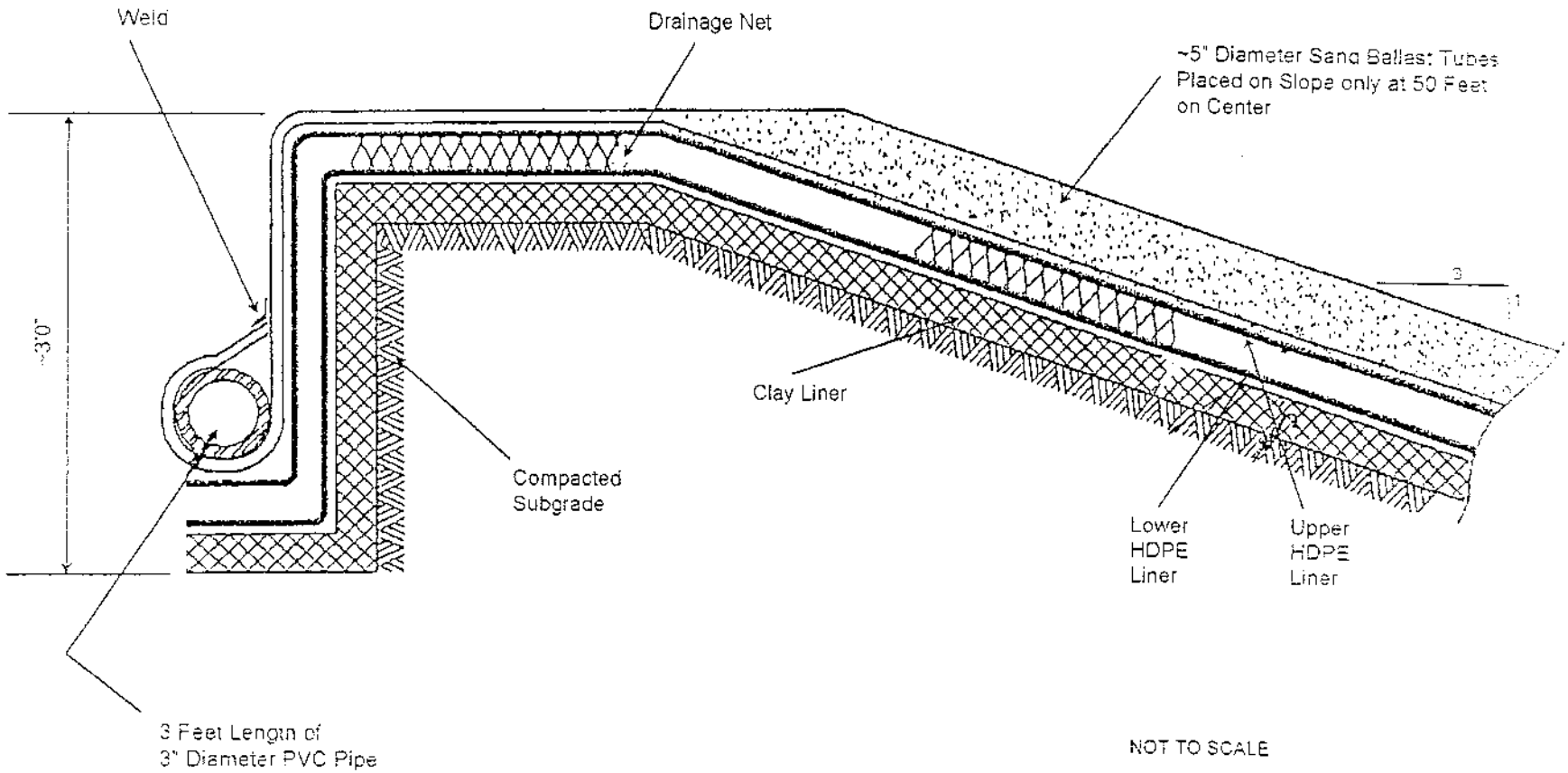


Figure 7
Evaporation Pond Liner Details - Typical
Blythe Energy Phase II

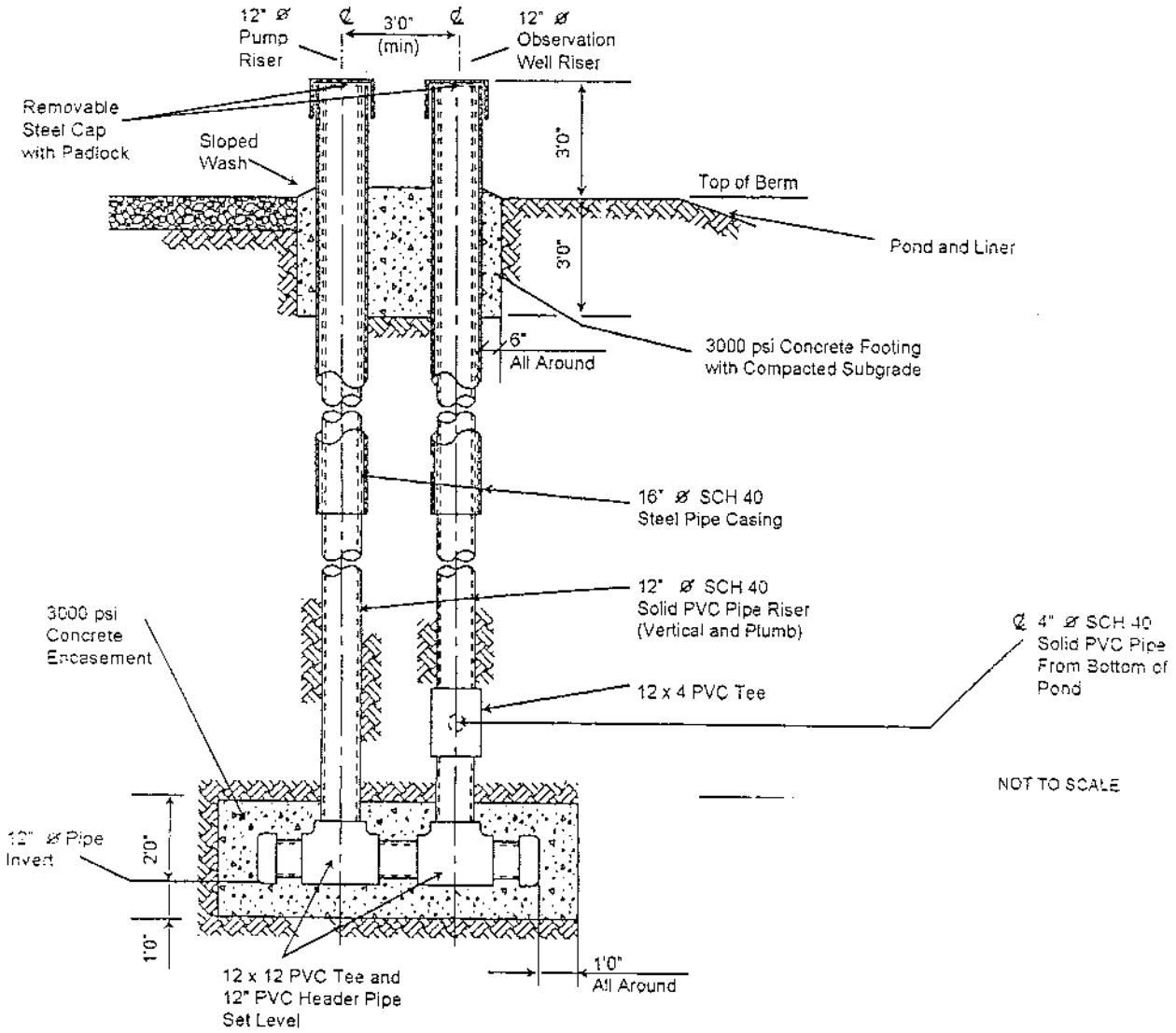


Figure 8
Leak Detection Monitoring System - Typical
Blythe Energy Phase II

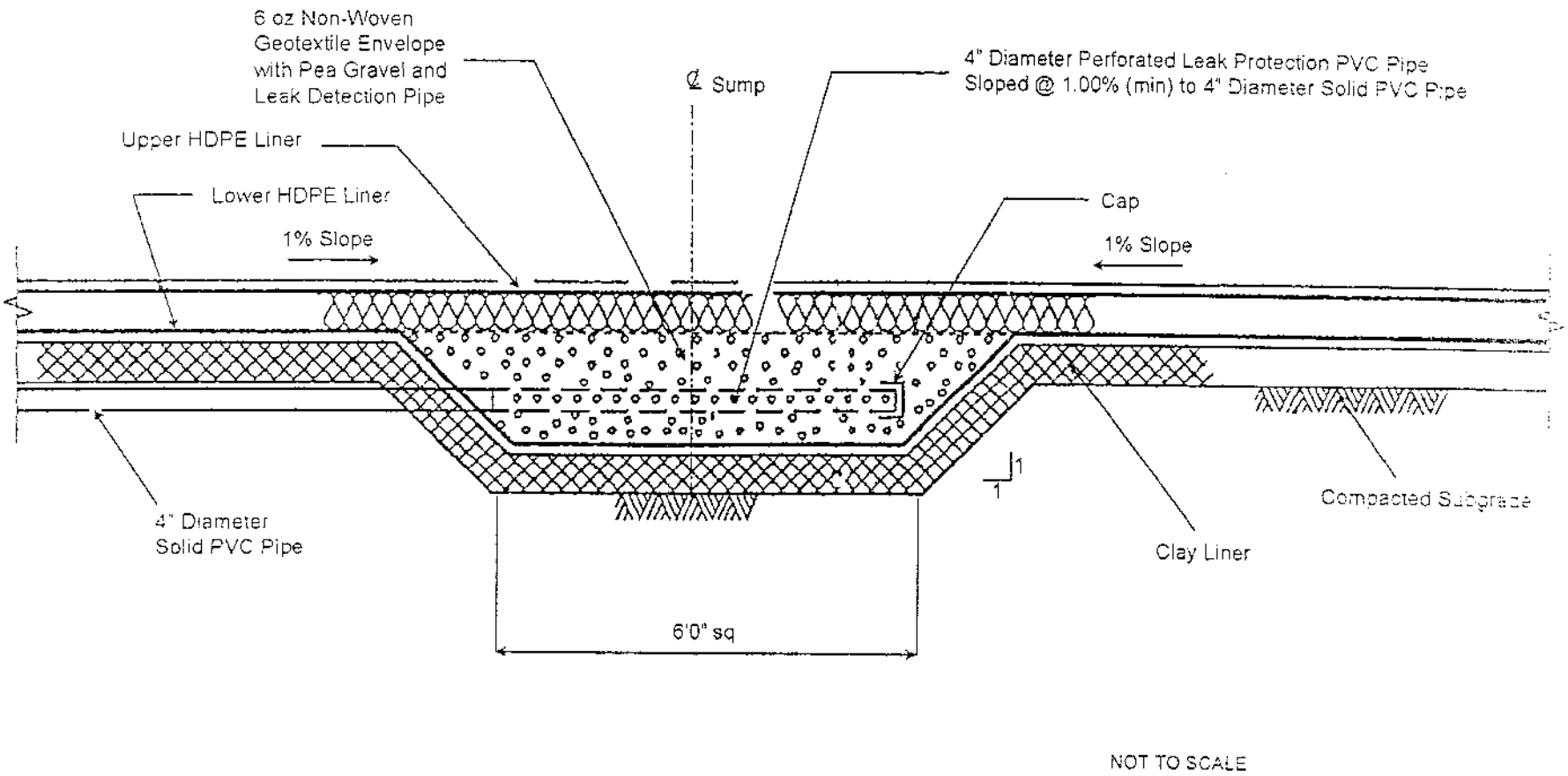


Figure 9
Sump Design - Typical
Blythe Energy Phase II

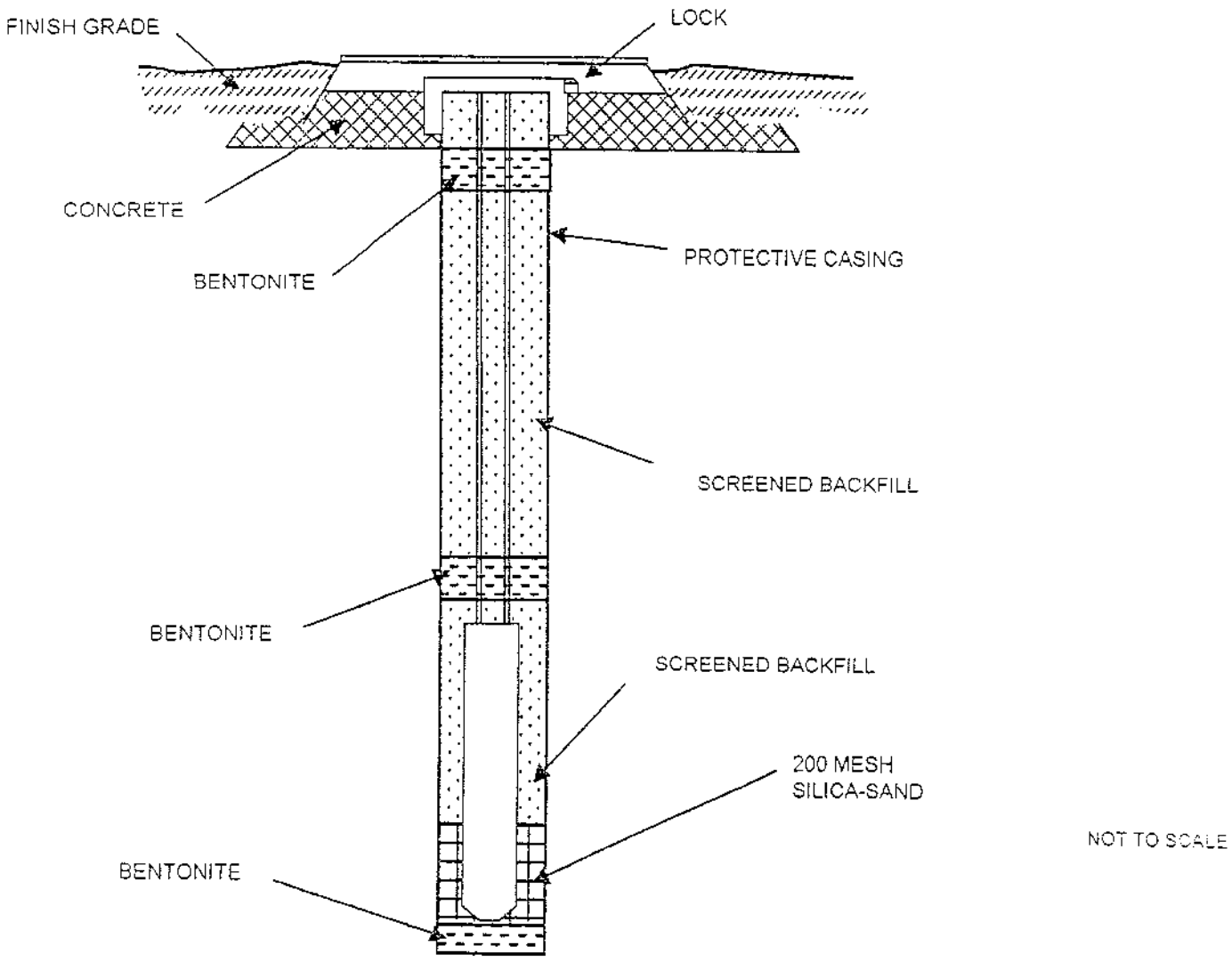
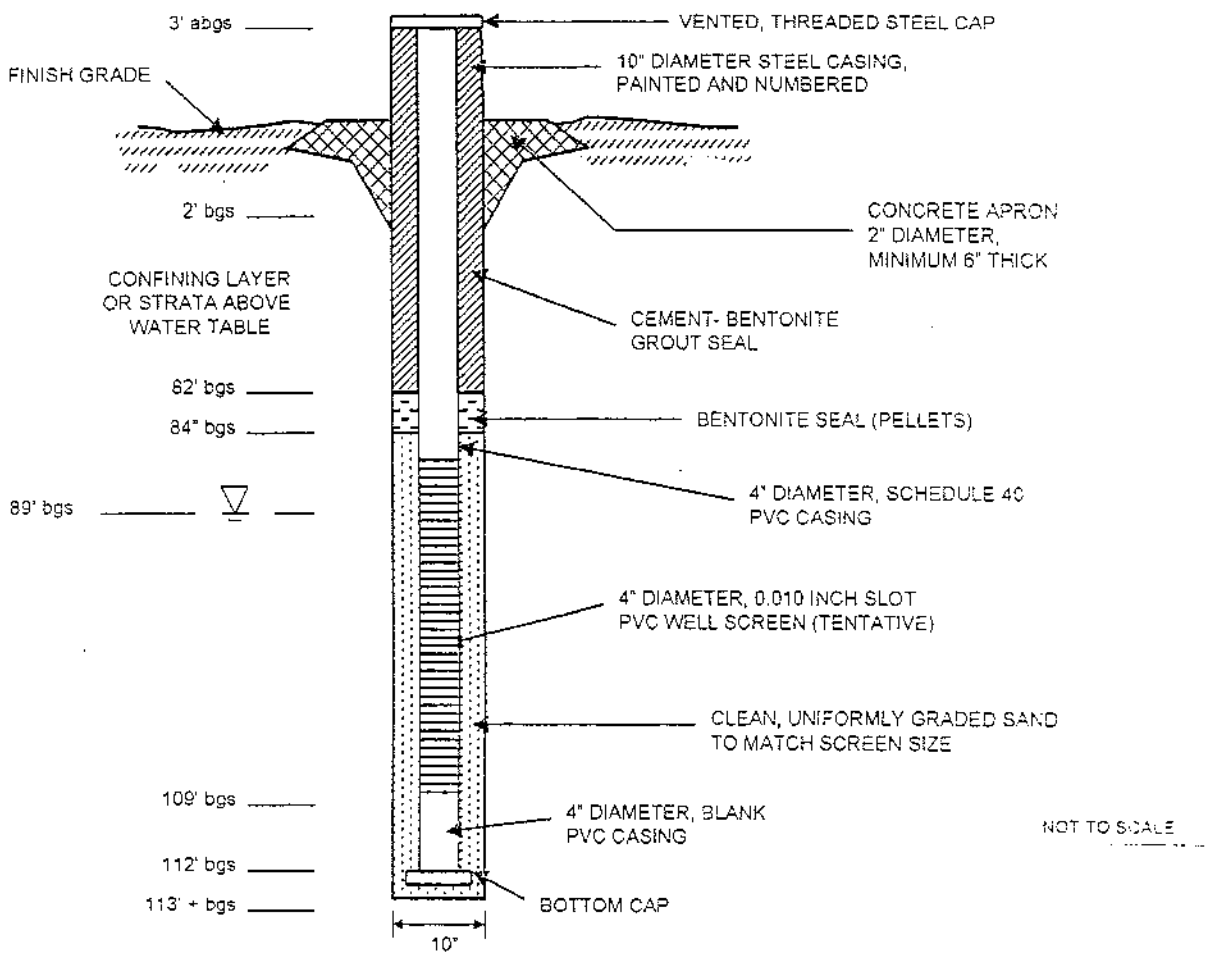


Figure 10
Lysimeter Sampling Design - Typical
Blythe Energy Phase II



abgs: above ground surface
bgs: below ground surface

*NOTE: Final construction details will be determined in the field during construction.

Figure 11
Groundwater Monitoring Well - Typical
Blythe Energy Phase II

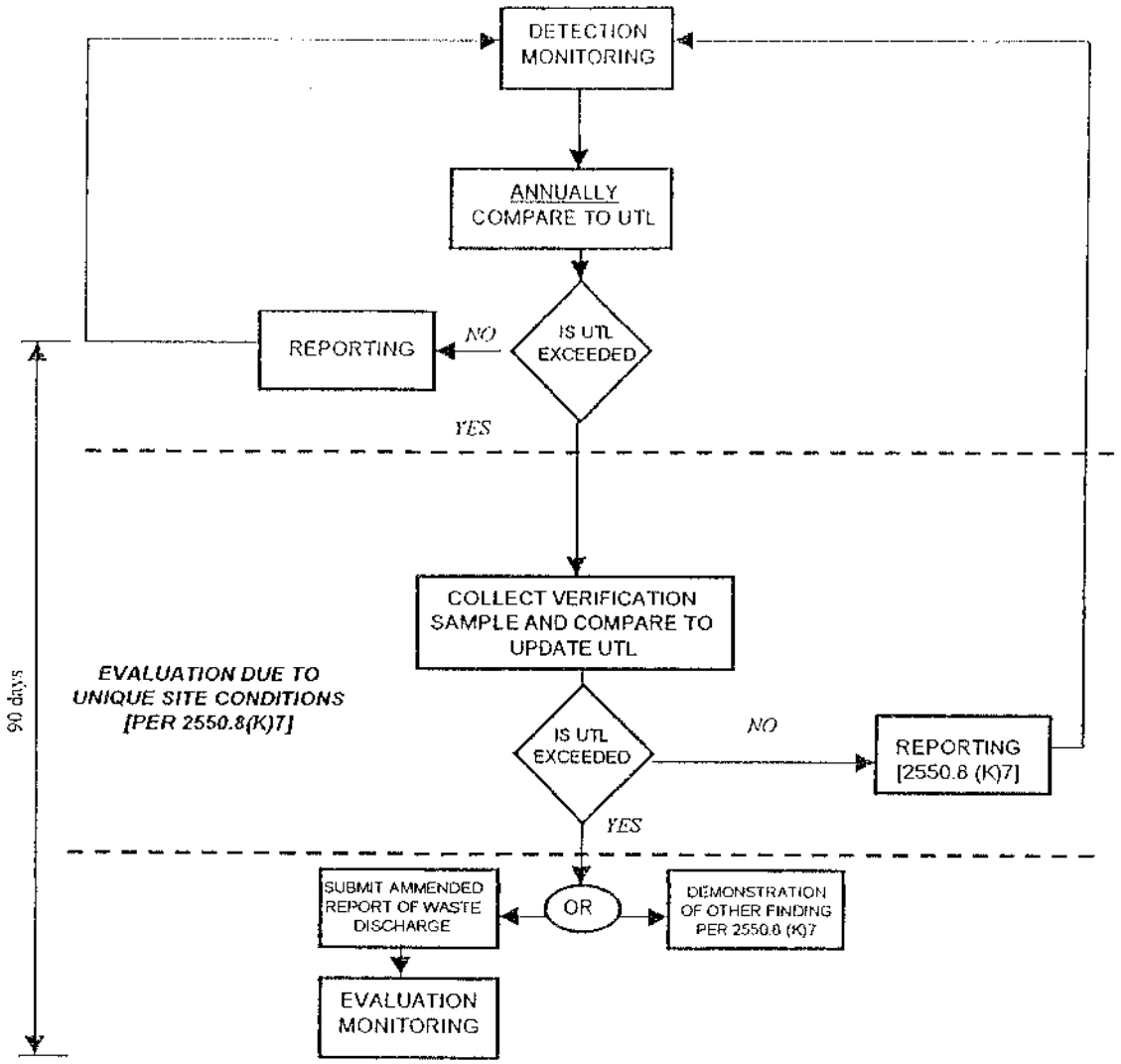


Figure 12
Detection Monitoring and Statistical Evaluation
Blythe Energy Phase II

APPENDIX A

TYPICAL LYSIMETER SPECIFICATION

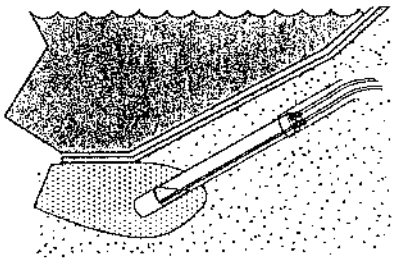
1920F1 SOIL WATER SAMPLER

The 1920F1 Pressure/Vacuum Soil Water Sampler consists of a PVC body with a ceramic cup epoxy bonded to one end. The porous ceramic cup has an outside diameter of 1.9" (4.8 cm) and is 2.0" (5.0 cm) in length. The 1920F1 is normally supplied with a 2 bar (200 kPa) ceramic cup, but 0.5 bar (50 kPa) and 1 bar (100 kPa) cups are also available. Nylon compression fittings are threaded into the top cup and are used to attach lengths of Polyethylene tubing to a remote sampling station. A pressure-vacuum hand pump, Model 2006G2, is used for evacuating the sampler and recovering the sample. For situations where specific cleaning operatings are required, the 1920F1K1, which has a removable ceramic cup, is available.

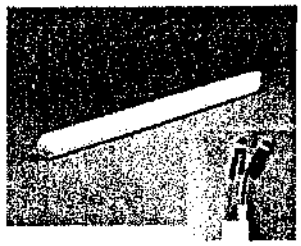
Please specify ceramic cup:

-B05M2	1/2 BAR POROUS CERAMIC CUP
-B02M2	2 BAR POROUS CERAMIC CUP
-B01M3	1 BAR HIGH FLOW POROUS CERAMIC CUP

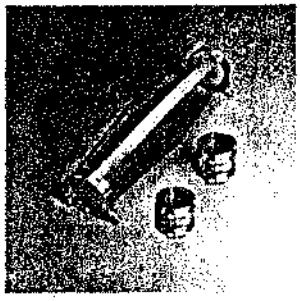
Product No.	Description	Weight
1920F1L06-B#M#	P/V SOIL WATER SAMPLER, 6" (15 cm) length	0.17 kgs
1920F1L12-B#M#	P/V SOIL WATER SAMPLER, 12" (30 cm) length	0.26 kgs
1920F1L24-B#M#	P/V SOIL WATER SAMPLER, 24" (61 cm) length	0.41 kgs
1920F1L36-B#M#	P/V SOIL WATER SAMPLER, 36" (91 cm) length	0.68 kgs



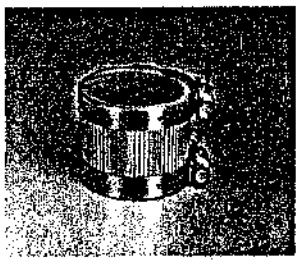
1920 installed



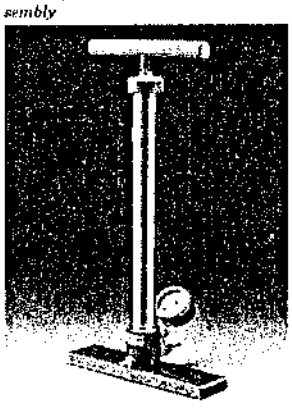
1920F1, Soil Water Sampler



1902K3, Centralizer with Adapter Kit



1902K4, Stainless Steel Coupling Assembly



2006G2, Pressure/Vacuum Hand Pump

Accessories

Product No.	Description	Weight
0920W050	BENTONITE, 50 lb. bag	22.68 kgs
	Used to seal soil in installation of Soil Water Samplers.	
0930W050	SILICA FLOUR, 50 lb. bag	22.68 kgs
	Used to provide good hydraulic connection between soil and porous ceramic cup when installing Soil Water Samplers.	
1902K3	CENTRALIZER WITH ADAPTER KIT	.45 kgs
	Includes two 1902K4 and one Centralizer	
1902K4	1.5" STAINLESS STEEL COUPLING ASSY	0.07 kgs
	Used to couple 1920 to 1.5" PVC conduit. No adhesive required.	
1903L100	BLACK POLYETHYLENE TUBING, 100 ft. length	1.30 kgs
1903L1000	BLACK POLYETHYLENE TUBING, 1000 ft. length	7.69 kgs
1904L100	GREEN POLYETHYLENE TUBING, 100 ft. length	1.30 kgs
1904L1000	GREEN POLYETHYLENE TUBING, 1000 ft. length	7.69 kgs
1920F1K1	UNASSEMBLED 1920F1L#	2.27 lbs
2006G2	PRESSURE/VACUUM HAND PUMP	2.49 kgs
	Provides vacuums up to 0.9 bar (90 kPa) and pressures up to 75 psi (500 kPa). Includes pump, vacuum dial gauge, fittings, & inline filter.	
2031G2	CLAMPING RING, one dozen	0.03 kgs
MRT005	NEOPRENE TUBING, 3/16" I.D. X 1/8" wall, per foot	0.04 kgs

SOILMOISTURE EQUIPMENT CORP.
801 S. Kellogg Ave., Goleta CA 93117 USA
Phone: (805) 964-3525 - Fax: (805) 683-2189 - E-mail: sales@soilmoisture.com - www.soilmoisture.com

Figure A-1
Typical Lysimeter Specification
Blythe Energy Phase II

APPENDIX B
EVAPORATION POND
OPERATIONAL LIMITATIONS

Evaporation Pond Operational Limitations

Background

The Blythe Energy Phase II (BEP II) evaporation ponds will not have the ability to receive the facility's discharge for the life of the plant without periodic cleanout of the ponds. Additionally, the BEP II evaporation ponds' capacity to accommodate plant discharge during upset conditions is limited.

In Section 1.9.9 of the Information in Support of a Waste Discharge it is noted that sufficient additional depth is available to provide for:

- Limited increase in water level that would occur when the evaporation rate is 90% of the mean rate for two consecutive years,
- Limited storage capacity for increase inflow when the brine concentrator is inoperable
- Limited increase in water level during pond maintenance

These conditions will be described in detail below.

Reduced Evaporation Rate

The ability of pond, or cell, No. 2 (the smaller of the two ponds) to accommodate plant discharge when the evaporation rate is 90% of the mean rate for two years is provided in Table B-1. The pond operating characteristics are based on a pan evaporation rate of 110 inches annually. This is modified to account for shallow pond evaporation (80% of pan evaporation rate is used), brine evaporation (70% of water evaporation rate is used), and below average annual evaporation rates (90% of mean rate is used). The average evaporation rate accounting for these three reductions is 55.4 inches annually, or 50% of the pan evaporation rate. Expected reduced monthly evaporation rates are tabulated in Table B-1.

Table B-1 uses predicted monthly water and solids pond influent values. The monthly values are reduced from the maximum values based on average monthly temperatures. (Pond influent is dependent on the main cooling tower evaporation rate. Main cooling tower evaporation rates decrease with decreasing ambient temperatures.) The average water and solids influent rates are approximately 69% of the maximum rates.

An appropriate Plant Utilization factor is used in Table B-1. The overall annual utilization factor is 91.8%. The utilization is highest, 98%, in the months of June through September. This high utilization factor for the months of maximum influent rates provides a conservative result.

The pond monthly levels and evaporation values in Table B-1 are based on the pond surface areas provided in Table B-3. For instance, for the starting month of January, the evaporation volume of 0.35 acre - feet is calculated by multiplying the expected brine evaporation for the month (1.9/12 feet) by the pond surface area of 2.21 acres. Similarly, the pond level is

determined by adding to the starting level of 5 feet the influent (sum of precipitation, water, and solids – in this case, 0.15, 1.17, and 0.14 acre feet respectively, divided by the area of 2.21 acres.) and subtracting the evaporation. Or, pond level equals

$$5 + (0.15 + 1.17 + 0.14)/2.21 - 1.9/12 = 5.5 \text{ feet}$$

Table B-1 shows that with a starting level of 5 feet above the bottom of the pond, the maximum operating level of 13 feet above the bottom of the pond is reached after 23 months. With the monthly evaporation and influent rates provided on Table B-1 and the stage-storage values provided in Table B-3, the ability of pond No. 2 to accommodate normal influent concurrently with 90% of mean evaporation rate can be determined for various pond starting levels.

A starting level of 4.5 feet above the bottom of the pond would accommodate two years of normal influent at 90% of the mean evaporation rate. Were Pond No. 2 the in service pond, it is not likely that pond level during facility operation would be less than 4.5 feet. It follows that BEP II will not always be able to accommodate two years of average influent concurrent with reduced, 90% of mean, evaporation rates without putting the out of service pond into service.

Pond Storage Capacity With Brine Concentrator Inoperable

The BEP II evaporation ponds have a limited ability to accommodate unconcentrated cooling tower blowdown. The maximum cooling tower blowdown rate is approximately 416 gpm. A volume of 1.84 acre-feet of blowdown would be generated each day that the facility operates with the brine concentrator out of service. The time available to accommodate unconcentrated blowdown is based on Pond No. 2 only being available. Figure B-3 provides a table that shows the days available to accommodate unconcentrated blowdown. Figure B-3 indicates that the time ranges from 1 day at a pond level of 12 feet to 10.7 days at a pond level of 5 feet. The values in Figure B-3 include, for conservatism, the impact of an extreme precipitation event concurrent with the brine concentrator being inoperable.

Figure B-3 shows the worst case as it uses the maximum cooling tower blowdown rate for the entire time the blowdown is unconcentrated. It is likely that the facility operator would reduce the blowdown rate in tandem with evaporation rates that are less than the maximum rate. This would depend on the time of year the brine concentrator becomes unavailable; main cooling tower evaporation rates are lowest in the winter.

Figure B-1
Flow to One Cell at 90% of Mean Evaporation Rate

Month	Tabulated Evaporation [1] (inches)	Expected Water Evaporation [2] (inches)	90% of Expected Water Evaporation (inches)	Expected Brine Evaporation [3] (inches)	Expected Brine Evaporation for year with 90% of average evaporation [3] (inches)	Average Precipitation (inches)	Average Precipitation (acre - ft)	Plant Utilization	Average Temperature (°F)	Monthly Water to Pond (acre-ft)	Monthly Solids to Pond (acre-ft)	Total Monthly Influent [4]	Evaporation with Pond #2 beginning year at elevation 5' (acre-ft)	Pond Level at end of month	Evaporation with Pond #2 beginning year at elevation 9.8' (acre-ft)	Pond Level at end of month
January	3.8	3.0	2.7	2.1	1.9	0.5	0.15	0.80	53.8	1.17	0.14	1.46	0.35	5.5	0.43	10.2
February	4.8	3.8	3.5	2.7	2.4	0.4	0.12	0.90	58.7	1.28	0.15	1.55	0.46	6.0	0.55	10.6
March	7.7	6.2	5.5	4.3	3.9	0.4	0.10	0.90	64.1	1.48	0.17	1.76	0.74	6.4	0.89	10.9
April	10.1	8.1	7.3	5.7	5.1	0.2	0.05	0.90	71.6	1.54	0.18	1.77	0.99	6.8	1.18	11.1
May	13.0	10.4	9.4	7.3	6.6	0.0	0.01	0.95	79.4	1.78	0.21	1.99	1.30	7.0	1.53	11.3
June	14.4	11.5	10.4	8.1	7.3	0.0	0.01	0.98	88.5	1.94	0.23	2.18	1.45	7.4	1.71	11.4
July	15.5	12.4	11.2	8.7	7.8	0.3	0.08	0.98	94.6	2.09	0.24	2.41	1.59	7.7	1.85	11.5
August	13.7	11.0	9.9	7.7	6.9	0.7	0.20	0.98	93.3	2.07	0.24	2.51	1.43	8.1	1.64	11.9
September	10.8	8.6	7.8	6.0	5.4	0.4	0.11	0.98	87.1	1.89	0.22	2.22	1.14	8.6	1.31	12.3
October	7.8	6.2	5.6	4.4	3.9	0.3	0.08	0.95	75.3	1.73	0.20	2.01	0.84	9.0	0.96	12.6
November	4.8	3.8	3.5	2.7	2.4	0.2	0.06	0.90	62.1	1.40	0.16	1.63	0.52	9.4	0.60	13.0
December	3.6	2.9	2.6	2.0	1.8	0.5	0.14	0.80	53.9	1.17	0.14	1.45	0.40	9.8	0.46	13.3
	110.0	88.0	79.2	61.6	55.4	3.7	1.10	11.02		19.54	2.29	22.93	11.21		13.11	
								91.83%'								

1 Assumed to be pan evaporation rate

2 Assume evaporation of water in shallow pond is 80% of pan evaporation rate
Assume brine evaporation rate is 70% of water evaporation

3 rate

4 Precipitation, water, and solids

Appendix B
Evaporation Pond Operational Parameters
Blythe Energy Phase II

Figure B-2
Sheet 1 of 3
BEP II Evaporation Pond Stage – Storage Relationship

Stage - Storage Relationship For BEP II Evaporation Pond No. 1

Elevation Below top of Berm (ft)	Stage Area (acres)	Stage Volume (acre-ft)	Stage Volume (Ft^3)	Cumulative Volume (acre-ft)	Cumulative Volume (ft^3)
-15	1.85				
		1.89	82,309	1.89	82,309
-14	1.93				
		1.97	85,970	3.86	168,279
-13	2.02				
		2.06	89,703	5.92	257,982
-12	2.10				
		2.15	93,509	8.07	351,491
-11	2.19				
		2.24	97,385	10.30	448,876
-10	2.28				
		2.33	101,344	12.63	550,220
-9	2.37				
		2.42	105,355	15.05	655,575
-8	2.47				
		2.51	109,447	17.56	765,023
-7	2.56				
		2.61	113,612	20.17	878,634
-6	2.66				
		2.71	117,848	22.88	996,482
-5	2.75				
		2.80	122,156	25.68	1,118,637
-4	2.85				
		2.90	126,530	28.59	1,245,167
-3	2.96				
		3.01	130,918	31.59	1,376,085
-2	3.06				
		3.10	135,242	34.70	1,511,327
-1	3.15				
		3.20	139,437	37.90	1,650,764
0	3.25				

Figure B-2
Sheet 2 of 3
BEP II Evaporation Pond Stage – Storage Relationship

Stage - Storage Relationship For BEP II Evaporation Pond No. 2

Elevation Below top of Berm (ft)	Stage Area (acres)	Stage Volume (acre-ft)	Stage Volume (Ft^3)	Cumulative Volume (acre-ft)	Cumulative Volume (acre-ft)
-15	1.76	0	0	0	0
		1.80	78,484	1.80	78,484
-14	1.84				
		1.89	82,264	3.69	160,749
-13	1.93				
		1.98	86,125	5.67	246,874
-12	2.02				
		2.07	90,066	7.74	336,939
-11	2.11				
		2.16	94,087	9.90	431,027
-10	2.21				
		2.25	98,189	12.15	529,216
-9	2.30				
		2.35	102,371	14.50	631,587
-8	2.40				
		2.45	106,634	16.95	738,221
-7	2.50				
		2.54	110,771	19.49	848,992
-6	2.60				
		2.65	115,400	22.14	964,392
-5	2.70				
		2.75	119,904	24.89	1,084,296
-4	2.80				
		2.86	124,476	27.75	1,208,773
-3	2.91				
		2.96	129,080	30.71	1,337,853
-2	3.02				
		3.07	133,657	33.78	1,471,510
-1	3.12				
		3.17	138,153	36.95	1,609,662
0	3.22				

Figure B-2
Sheet 3 of 3
BEP II Evaporation Pond Stage – Storage Relationship

Stage - Storage Relationship For Combined BEP II Evaporation Ponds

Elevation Below top of Berm (ft)	Stage Area (acres)	Stage Volume (acre-ft)	Stage Volume (Ft^3)	Cumulative Volume (acre-ft)	Cumulative Volume (acre-ft)
-15	3.61				
		3.69	164,454	3.69	160,793
-14	3.78				
		3.86	171,968	7.55	329,027
-13	3.95				
		4.04	179,633	11.59	504,856
-12	4.12				
		4.22	187,451	15.81	688,430
-11	4.30				
		4.40	195,432	20.21	879,903
-10	4.49				
		4.58	203,544	24.78	1,079,436
-9	4.67				
		4.77	211,819	29.55	1,287,162
-8	4.86				
		4.96	220,246	34.51	1,503,243
-7	5.06				
		5.15	228,618	39.66	1,727,626
-6	5.25				
		5.36	237,556	45.02	1,960,874
-5	5.46				
		5.55	246,434	50.57	2,202,934
-4	5.66				
		5.76	255,394	56.34	2,453,940
-3	5.87				
		5.97	264,322	62.30	2,713,937
-2	6.07				
		6.17	273,094	68.48	2,982,836
-1	6.27				
		6.37	138,153	74.85	3,260,426
0	6.47				

FIGURE B-3
Pond No. 2 – Unconcentrated Blowdown Accommodation

Pond Elevation, feet below top of pond.[2]	Volume of pond to stage (acre-ft)	Volume of pond to maximum operating level (acre-ft)	Volume available for blowdown and precipitation (acre-ft)	Extreme Precipitation Event (acre-ft)[1]	Volume available for blowdown following extreme precipitation (acre-ft)	Volume available for blowdown following extreme precipitation (gal)	Blowdown rate (gpm)	Days available to accommodate blowdown
-2	30.71	30.71	0.00	1.14	-1.14	-371,445	416	
-3	27.75	30.71	2.96	1.14	1.82	593,008	416	1.0
-4	24.89	30.71	5.82	1.14	4.68	1,524,879	416	2.5
-5	22.14	30.71	8.57	1.14	7.43	2,420,908	416	4.0
-6	19.49	30.71	11.22	1.14	10.08	3,284,354	416	5.5
-7	16.95	30.71	13.76	1.14	12.62	4,111,959	416	6.9
-8	14.5	30.71	16.21	1.14	15.07	4,910,240	416	8.2
-9	12.15	30.71	18.56	1.14	17.42	5,675,938	416	9.5
-10	9.9	30.71	20.81	1.14	19.67	6,409,052	416	10.7

1 Area which collects rain water is the area within the access road that circles the top of pond No. 2, 3.6 acres.
2 Top of pond is at elevation of 15 feet
3 Pond stage areas and volumes are tabulated in Figure B-2.
4 Extreme precipitation event is 3.8 inches in a 24 hour period.
5 Volume available for blowdown and precipitation is the difference between the volume at the maximum operating level, -2', and the stage of interest.

Appendix B
Evaporation Pond Operational Parameters
Blythe Energy Phase II

APPENDIX C
PROPOSED MAXIMUM SOLIDS LEVELS

Evaporation Pond Proposed Maximum Solids Levels

Background

Caithness Blythe II (CBII) has been requested by the Colorado River Basin Region office of the California Regional Water Quality Control Board (RWQCB) to propose maximum solids levels for the Blythe Energy Project Phase II (BEP II) evaporation ponds. This request was transmitted in a letter from Michelle Ochs of the RWQCB to Robert Gavahan of Power Engineers Collaborative dated March 19, 2004.

CB II proposes that two maximum levels be defined. One maximum level will be valid for the case where both evaporation ponds are available to receive discharge. This is expected to be the normal operating method for BEP II. The second proposed limit is for the case where one of the ponds has been taken out of service for solids removal and the pond that remains in service receives all of the discharge. These scenarios are described in more detail below.

Operating Philosphy

CB II proposes that a maximum solids level of 9 feet above the bottom of the ponds be established for the case when both BEP II evaporation ponds are in service. When the solids level reaches 9 feet in both ponds one pond would be taken out of service so that accumulated sludge and solids could be removed; the other pond would remain in service to accept all discharge.

A starting level of 9 feet above the bottom of the pond would result in a water level of less than 13 feet after 12 months of operation (based on an evaporation rate of 90% of the average annual evaporation rate), Figure C-1 presents the pond level calculations for a starting level of 9 feet above the bottom of the pond.

Because the liquid influent to the single pond is greater than the single pond's evaporation capacity, the pond will build up an inventory of liquid. The limiting level for the in service pond will be the liquid level, not the solids level. Figure C-1 shows that the predicted solids accumulation will be at a rate of 2.29 acre-feet/year. Figure B-2 provides an area of 2.6 acres at an elevation of 9 feet (presented as -6 feet in the table) above the bottom of Pond No. 2, the smaller pond. The increase in solids level for one year for a single pond would be 2.3/2.6 ~0.88 feet.

CB II proposes a maximum solids level of 10 feet above the bottom of the pond be established for the case when only one evaporation pond is in service. The maximum operating level of 13 feet above the bottom of the pond would also be in effect.

The single pond limits proposed above are based on the relationships presented in Figure C-1. Figure C-1 calculations use an evaporation rate of 90% of the average annual rate; therefore, the

liquid inventory would be expected to increase at a slightly lower rate for average conditions (there would be more evaporation).

Appendix C
Proposed Maximum Solids Levels
Blythe Energy Phase II

PEC

Figure C-1

Flow to One Cell at 90% of Mean Evaporation Rate With a Starting Level of 9 Feet Above the Bottom of the Pond

Evaporation Pond Proposed Maximum Solids Levels

Month	Tabulated Evaporation [1] (inches)	Expected Water Evaporation [2] (inches)	90% of Expected Water Evaporation (inches)	Expected Brine Evaporation [3] (inches)	Expected Brine Evaporation for year with 90% of average evaporation [3] (inches)	Average Precipitation (inches)	Average Precipitation (acre - ft)	Plant Utilization	Average Temperature (°F)	Monthly Water to Pond (acre-ft)	Monthly Solids to Pond (acre-ft)	Total Monthly Influent [4]	Evaporation with Pond #2 beginning year at elevation 9' (acre-ft)	Pond Level at end of month
January	3.8	3.0	2.7	2.1	1.9	0.5	0.15	0.60	53.8	1.17	0.14	1.46	0.41	9.4
February	4.8	3.8	3.5	2.7	2.4	0.4	0.12	0.90	58.7	1.28	0.15	1.55	0.53	9.9
March	7.7	6.2	5.5	4.3	3.9	0.4	0.10	0.90	64.1	1.48	0.17	1.76	0.87	10.1
April	10.1	8.1	7.3	5.7	5.1	0.2	0.05	0.90	71.6	1.54	0.18	1.77	1.15	10.3
May	13.0	10.4	9.4	7.3	6.6	0.0	0.01	0.95	79.4	1.78	0.21	1.99	1.49	10.5
June	14.4	11.5	10.4	8.1	7.3	0.0	0.01	0.96	88.5	1.94	0.23	2.18	1.66	10.7
July	15.5	12.4	11.2	8.7	7.8	0.3	0.08	0.98	94.6	2.09	0.24	2.41	1.80	10.9
August	13.7	11.0	9.9	7.7	6.9	0.7	0.20	0.98	93.3	2.07	0.24	2.51	1.61	11.3
Septembar	10.8	8.6	7.8	6.0	5.4	0.4	0.11	0.98	87.1	1.89	0.22	2.22	1.26	11.6
October	7.8	6.2	5.6	4.4	3.9	0.3	0.08	0.95	75.3	1.73	0.20	2.01	0.93	12.0
November	4.8	3.8	3.5	2.7	2.4	0.2	0.06	0.90	62.1	1.40	0.16	1.63	0.59	12.3
December	3.6	2.9	2.6	2.0	1.8	0.5	0.14	0.60	53.9	1.17	0.14	1.45	0.44	12.7
	110.0	88.0	79.2	61.6	55.4	3.7	1.10	11.02 91.83%'		19.54	2.29	22.93	12.77	

1 Assumed to be pan evaporation rate
2 Assume evaporation of water in shallow pond is 80% of pan evaporation rate
3 Assume brine evaporation rate is 70% of water evaporation rate
4 Precipitation, water, and solids

Appendix C
Proposed Maximum Solids Levels
Blythe Energy Phase II

ATTACHMENT 4

TO

SOIL AND WATER

COMMENTS

Attachment to BEP II PSA Soils and Water Comments

Response to Preliminary Staff Assessment, Soil and Water Resources

The PSA Soil and Water Resources analysis prepared by Staff is inaccurate as it is based upon:

1) Staff's failure to recognize the existence of California water law pertaining to groundwater, relying instead upon a confused (by Staff's own admission) understanding of the Bureau of Reclamation's (Bureau) contemplated policy positions;

2) an unfounded analysis regarding the relationship between surface water and groundwater aquifers, that includes invention and use of the term "Colorado River Groundwater" throughout, and assertion in one section that all pumped water will directly deplete the surface waters in the Colorado River, while claiming in another section that pumping will draw groundwater levels down;

3) selective and incorrect application of LORS that apply to appropriative water rights to surface waters which is not contemplated for the BEP II project.

It is clear that Staff initiated their analysis with a fundamental bias and predetermined conclusion intended to require dry cooling for the BEP II project, despite the fact the CEC has already made the opposite determination regarding water resources for the adjacent, identical and now fully operational BEP project. Nothing has changed relative to governing LORS since the BEP project was approved in 2000, and Staff's recommended conclusion in favor of dry cooling is totally inconsistent and contradictory with the Commission's decision in the previous case.

Rather than a detailed comment on individual elements of the analysis, CB II will focus its response on the big picture elements that are incorrect with Staff's water resources assessment.

---

1) Staff has failed to recognize the existence of California water law pertaining to groundwater, relying instead upon its own interpretation of the Bureau of Reclamation's proposed policy positions for regional water use accounting.

The Bureau is the Supreme Court appointed Water Master for allocation of surface water from the Colorado River. The BEP II project will rely solely upon groundwater, and does not propose to use any surface water.

The BEP II project proposes to use groundwater pumped from wells located onsite within the power plant property fenceline that will draw water from 500 to 600 feet below the ground surface and located a distance of more than 9 miles

from the Colorado River. This proposal is identical to the existing use of groundwater employed for the adjacent BEP project.

Despite responding to several rounds of data requests and multiple workshop discussions explaining the proposed use of groundwater and the distinction between groundwater and surface water, Staff has refused to mention or even recognize the governing California law pertaining to use of groundwater by overlying property owners in its LORS section (pages 4.2-2 through 4.9-7)

There are no adverse effects associated with the project's use of California groundwater attributable to the Colorado River or other surface hydrologic impacts. However, to address concerns of the Bureau of Reclamation regarding a possible future regulatory policy affecting groundwater in the lower Colorado River Basin, the BEP II project voluntarily developed its Water Conservation Offset Program (WCOP) as an accounting offset for its California groundwater use.

The Bureau has reviewed the BEP II WCOP, and has advised the CEC in writing the voluntary WCOP proactively addresses all of its concerns, and would satisfy the objectives of its proposed Accounting Surface Policy, should it ever be adopted (*Robert Johnson, Bureau of Reclamation, June 14, 2002 letter to Terry O'Brien, California Energy Commission*).

Regardless of the fact the Bureau's concerns have been fully addressed by the proposed use of groundwater and WCOP, the PSA reveals continued confusion regarding this point. It is therefore necessary to once again review the key facts pertaining to Colorado River surface water (which falls under jurisdiction of the Bureau), and local and regional groundwater resources (which are governed solely by California water law).

The applicant has consulted with the Bureau over the past three years regarding project issues. As was clearly established in the original BEP case, no LORS apply to the use of groundwater on the Palo Verde Mesa, and neither the Bureau nor the Palo Verde Irrigation District (PVID) currently exerts jurisdiction over any existing well users in the Palo Verde Valley or Mesa.

Over approximately the last two decades, the Bureau, in conjunction with the United States Geological Survey (USGS), has developed a model, referred to as the "Accounting Surface model" in an attempt to determine the relationship of regional groundwater to surface water in the Colorado River. This model is the basis of the Bureau's contemplated policy, and has been a source of contention with PVID, Mesa groundwater users, and other water users on the River for more than a decade. Reclamation has no firm timetable for actually developing a policy whereby they would attempt to regulate groundwater users relative to the PVID surface water entitlement.

Attachment to BEP II PSA Soils and Water Comments

The Bureau has indicated it believes it can extend its regulatory authority under the *Law of the River* to all Mesa well users, and that it is likely to do so in future years. It must be recognized, however, the Federal agency cannot simply declare Federal ownership of millions of acre-feet of California groundwater. Further the Federal claim to such groundwater – an unconfined aquifer with no well-defined subsurface bed and banks, and extending tens of miles from the Colorado River – is highly inconsistent with existing California water law regarding the distinction between surface water and groundwater. At a minimum, the Bureau will be required to consult and coordinate with the State Water Resources Control Board (SWRCB), and with the many groundwater users that would potentially be affected if such a policy were to be implemented. Using the history of water rights and water use in the region and State as a guide, this process will take many years and is likely to ultimately be settled only through long-term litigation, with an outcome that is at best, uncertain.

Despite the lack of LORS or any present jurisdiction, since groundwater pumping for the BEP II will encounter the Accounting Surface as defined by the Bureau, the Bureau has suggested this use of water, and all other Mesa groundwater users, may be accounted for at some undefined time in the future as a part of PVID's Priority 3 surface water entitlement. For this reason, and to ensure the power plant project does not affect regional surface water accounting, BEP and subsequently BEP II each voluntarily agreed to implement Water Conservation Offset Programs (WCOP).

As requested by CEC staff, BEP II obtained a letter from the Bureau explaining the jurisdictional issues and confirming suitability of the WCOP voluntarily developed by BEP II for the project. That letter, from Bureau Regional Director Robert Johnson, with a full copy of the Final Voluntary WCOP attached, has been docketed and made a formal part of the BEP II record. The letter confirms the Bureau's positions that:

- For over 10 years the Bureau has been developing a database of wells along the Colorado River from Lake Mead to Mexico. In addition, the Bureau and the USGS have developed a proposed approach that defines an "accounting surface" along the Lower Colorado River. This approach is designed to enable the Bureau to determine whether subsurface water is mainstem Colorado River water in order to assert jurisdiction over the use of this water. (However, it must be noted that the accounting surface method bears no relationship to California water law defining the parameters for legal determination of surface and groundwater linkages, and has not been tested for its legal applicability to California groundwater.)

- The Water Conservation Offset Program (WCOP) voluntarily developed by BEP II addresses the Bureau's objectives for selection and management

of lands to account for water use, and prevent increased Colorado River water demands in the Lower Basin.

- With voluntary implementation of the Final WCOP the Bureau concluded that the project will have no impacts under its contemplated accounting surface policy on the Colorado River system or on any junior water rights holders within that system.

It is important to reiterate the Bureau does not currently account for other wells on the Mesa or anywhere in the Palo Verde Valley in this fashion, or any other groundwater activity for any use, but has indicated it intends to regulate in the future, and is developing policy in coming years to that end. In addition, PVID has no policy to govern groundwater use, and at present does not regulate any groundwater user, or actively account for groundwater use as a part of its surface entitlements.

Adoption of a *voluntary* Water Conservation Offset Program is not required in response to any finding of environmental impact, or any requirement under existing LORS. Finally, with regards to the voluntary WCOP, we note again no other groundwater user in the region has taken such extraordinary measures to offer a long term offset as has been done voluntarily and at considerable expense for BEP and BEP II.

The Bureau's letter to the CEC (June 14, 2002) makes clear and unambiguous findings regarding legal jurisdiction and findings of no impacts on the Colorado River or other surface waters. Below is an excerpt from this letter:

> *Reclamation considers all wells in the lower Colorado River floodplain and wells within which the static water level is equal to or less than the accounting surface to be utilizing Colorado River water for accounting purposes, and we are in the process of developing a comprehensive regulatory program to account for these wells and their pumping. However, notwithstanding the Secretary's responsibilities under the Decree, we know of no laws, ordinances, regulations or standards currently being exercised to control or regulate groundwater pumping or other well users upon the Palo Verde Mesa.*
>
> *The Water Conservation Offset Program voluntarily developed by BEP II addresses Reclamation's objectives for selection and management of lands to account for water use, and prevents increased Colorado River water demands in the Lower Basin.* (underline emphasis added)

Therefore, consistent with the Bureau's findings, we conclude the BEP II project does not pose any potential effects, individually or cumulatively, on the Colorado River surface water system.

It is important to note Staff attempted to distinguish this latest and definitive correspondence from the Bureau by selectively citing portions of earlier correspondence. This is not the independent review Staff is mandated to perform. Staff, in its PSA, has advocated a particular position and then attempted to distort the facts to support it.

2) In furtherance of its intent to ignore the BEP II proposal to utilize groundwater and existing California groundwater law, staff has developed a fundamentally incorrect analysis regarding the relationship between surface water and groundwater aquifers.

Staff initially describes a very typical surface water / groundwater recharge relationship (page 4.9-10), and then concludes since the aquifer gets recharged by the surface water system over time, the groundwater is therefore surface water. Staff has invented a new phrase "Colorado River Groundwater", which is used throughout their report. This new phrase, however, has no relevance and will not negate more than a century of California groundwater law.

This is neither a minor nor a semantic issue. Accepting the staff position would have implications for all of California, since nearly all rivers in the State contribute in some way to recharge of underlying groundwater systems (aquifers). For example, logically applied to any other location in the State, all groundwater in the Sacramento Valley from the Delta to Redding could be classified as "Sacramento River Groundwater", or from the Delta to Bakersfield as "San Joaquin River Groundwater". Staff's position implies every well water user in the State should be subject to surface water law instead of the long-prevailing legal system that recognizes a distinction between surface waters in defined bed and banks, and subsurface waters in aquifers.

In the PSA, it is apparent Staff could not maintain consistency with this argument, asserting in one section all pumped water will directly deplete the surface waters in the Colorado River, but claiming in a later section pumping will deplete groundwater. Staff also explains irrigation water in the valley flows west to recharge the aquifer while simultaneously the aquifer flows east to recharge the surface water drains, and despite all this movement and implied direct connectivity, the groundwater aquifer has not fully recovered more than a decade later from agricultural groundwater pumping on the Mesa that occurred in the 1970s and 1980s (page 4.9-11).

It is well recognized in hydrology that groundwater and surface water systems are related, and groundwater may drain to the surface contributing to surface water flows, and surface waters seep into the ground and contribute to aquifer recharge. In proximity to the stream environment, these physical relationships can operate over short term periods (hours or days), but for most large unconfined aquifers the time period is measured in years or decades. This has clearly been shown to be the case for the aquifer underlying the Palo Verde

Mesa, from which the BEP II proposes to draw its groundwater, and the mere physical relationship between the two does not affect the governing body of California water law which pertains to groundwater in the aquifer.

3) Staff is not interpreting correctly fundamental California groundwater laws and selectively misapplies the LORS that apply to appropriative water rights to surface waters -- a practice not contemplated for the BEP II project.

Staff has cited SWRCB Policy 75-58 as State LORS limiting use of fresh water for power plant cooling. Policy 75-58 was adopted by the SWRCB on June 19, 1975, pursuant to Water Code § 237, the Waste Water Reuse Law of 1974 and the Warren-Alquist Act. (75-58, p. 1). The policy deals with both water supply and wastewater issues associated with power plant operation. Importantly, this policy has no relevance for BEP II because no water rights appropriation is requested nor will one occur because BEP II proposes to use groundwater which is not subject to regulations governing appropriative water rights for surface waters.

To address the underlying concerns that led to the adoption of SWRCB Policy 75-58, the SWRCB made three important policy determinations. First, it established a hierarchy of various sources of water that should be used for power plant cooling; this priority identified the use of "inland waters," as the source that was least favored for such cooling. (Id., p 4). Second, the SWRCB indicated in those instances where it had jurisdiction, such as a request for a new appropriation or change in existing appropriation for purposes of using "fresh inland waters" for power plant cooling, the SWRCB would approve such new or amended appropriation only when the applicant could demonstrate the use of other water sources or cooling methods would be "environmentally undesirable" or "economically unsound." (Id., p. 4-6).

The SWRCB may apply Policy 75-58 when presented with an application for a new or changed appropriation for purposes of using "inland waters" for power plant cooling. (Id., p. 6). In terms of implementation, the policy makes no reference to any other State or local board, agency or body. Again, the policy does not apply where no appropriation will occur, such as in the proposed use of groundwater in the BEP II case.

Despite CEC staff's efforts to improperly extend the application of Policy 75-58 when it suits them, they have no problem amending and interpreting it when its strict application becomes inconvenient. The policy identifies "brackish water" as the third most desirable type of water to be used for cooling, and defines it as water with salinity of over 1000 TDS. Staff recognizes the water beneath the site has a TDS of over 1000, making it "brackish" for purposes of the policy, but rejects this conclusion, arguing that the policy is "somewhat dated" and "subject to interpretation." (PSA p. 4.9-59) Such inconsistent treatment demonstrates staff

is not really interested in applying the Policy, but only to further its agenda and predetermined goal to prevent the use of groundwater from beneath the Site for power plant cooling.

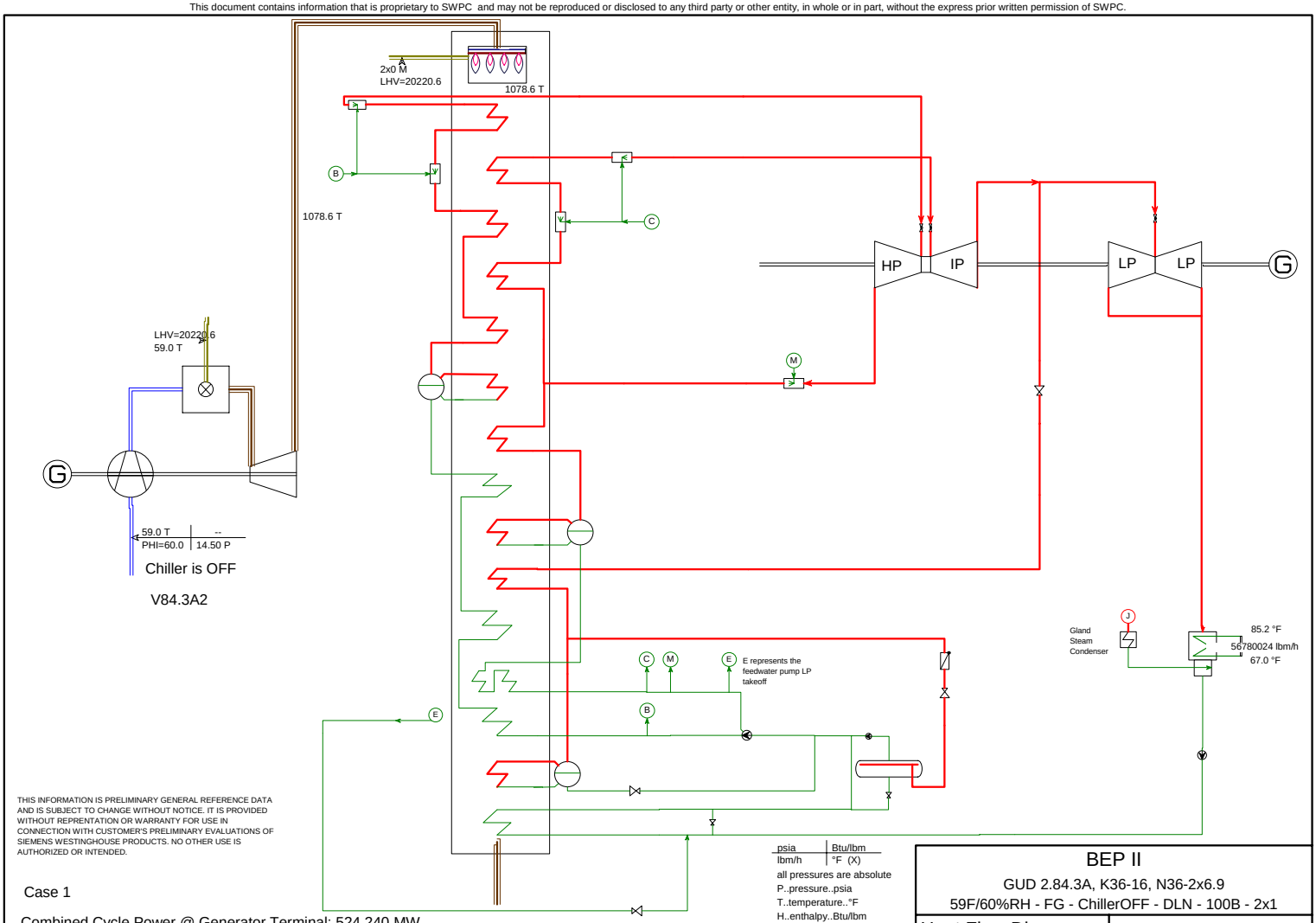
***

ATTACHMMENT 5

TO

SOIL AND WATER

COMMENTS



Case 1

Combined Cycle Power @ Generator Terminal: 524.240 MW

For Information only

psia | Btu/lbm
lbm/h | °F (X)

all pressures are absolute
P..pressure..psia
T..temperature..°F
H..enthalpy..Btu/lbm
M..mass flow..lbm/h
PHI..atmospheric humidity..%
fuel sensible heat included

BEP II

GUD 2.84.3A, K36-16, N36-2x6.9

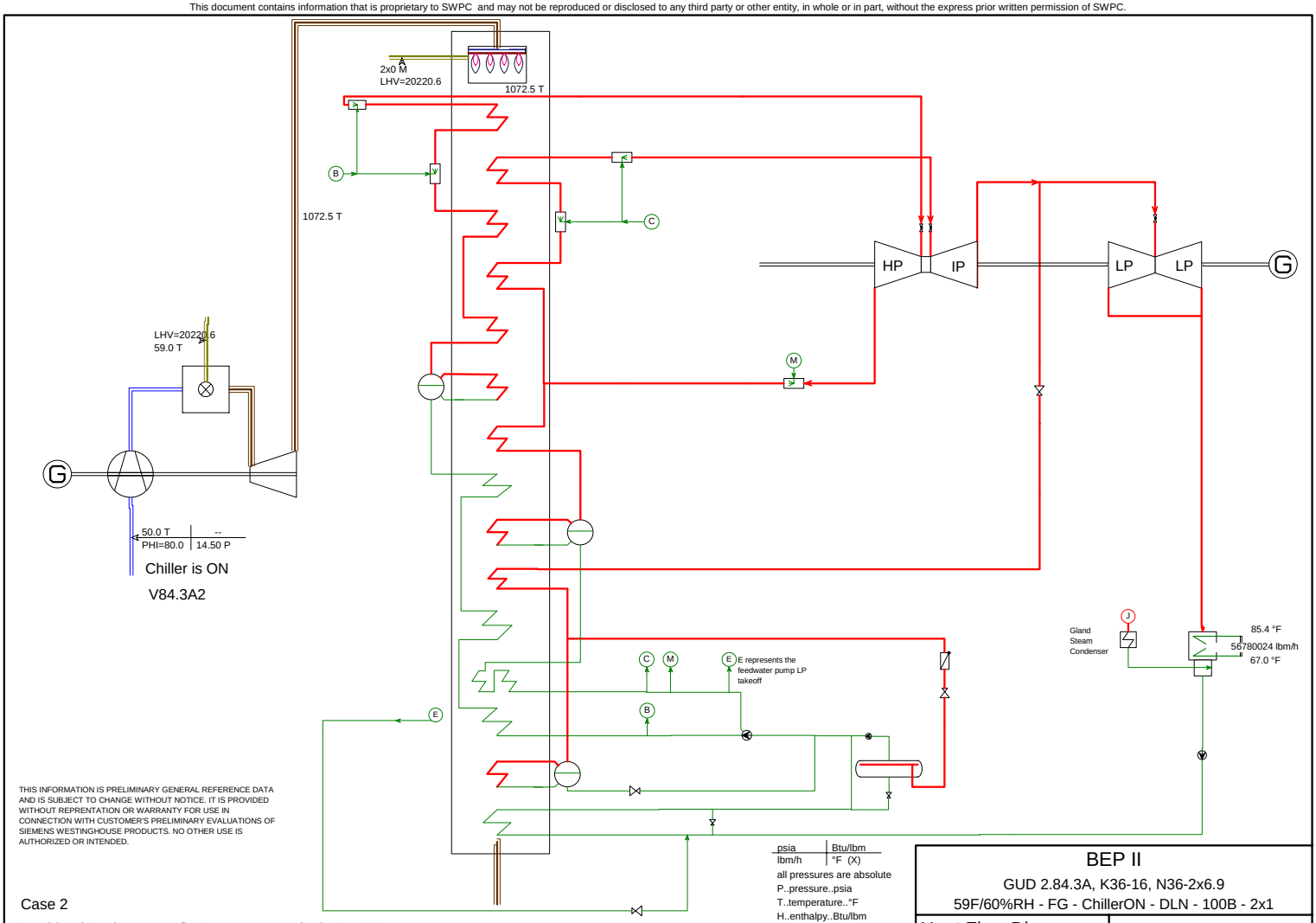
59F/60%RH - FG - ChillerOFF - DLN - 100B - 2x1

Heat Flow Diagram

No.280599 -A 712- HFD10001 D2

Orlando, Jan/07/2004 RDH

SWPC
A 712



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psia | Btu/lbm
lbm/h | °F (X)

all pressures are absolute
P..pressure..psia
T..temperature..°F
H..enthalpy..Btu/lbm
M..mass flow..lbm/h
PHI..atmospheric humidity..%
fuel sensible heat included

Case 2

Combined Cycle Power @ Generator Terminal: 534.030 MW

For Information only

BEP II

GUD 2.84.3A, K36-16, N36-2x6.9

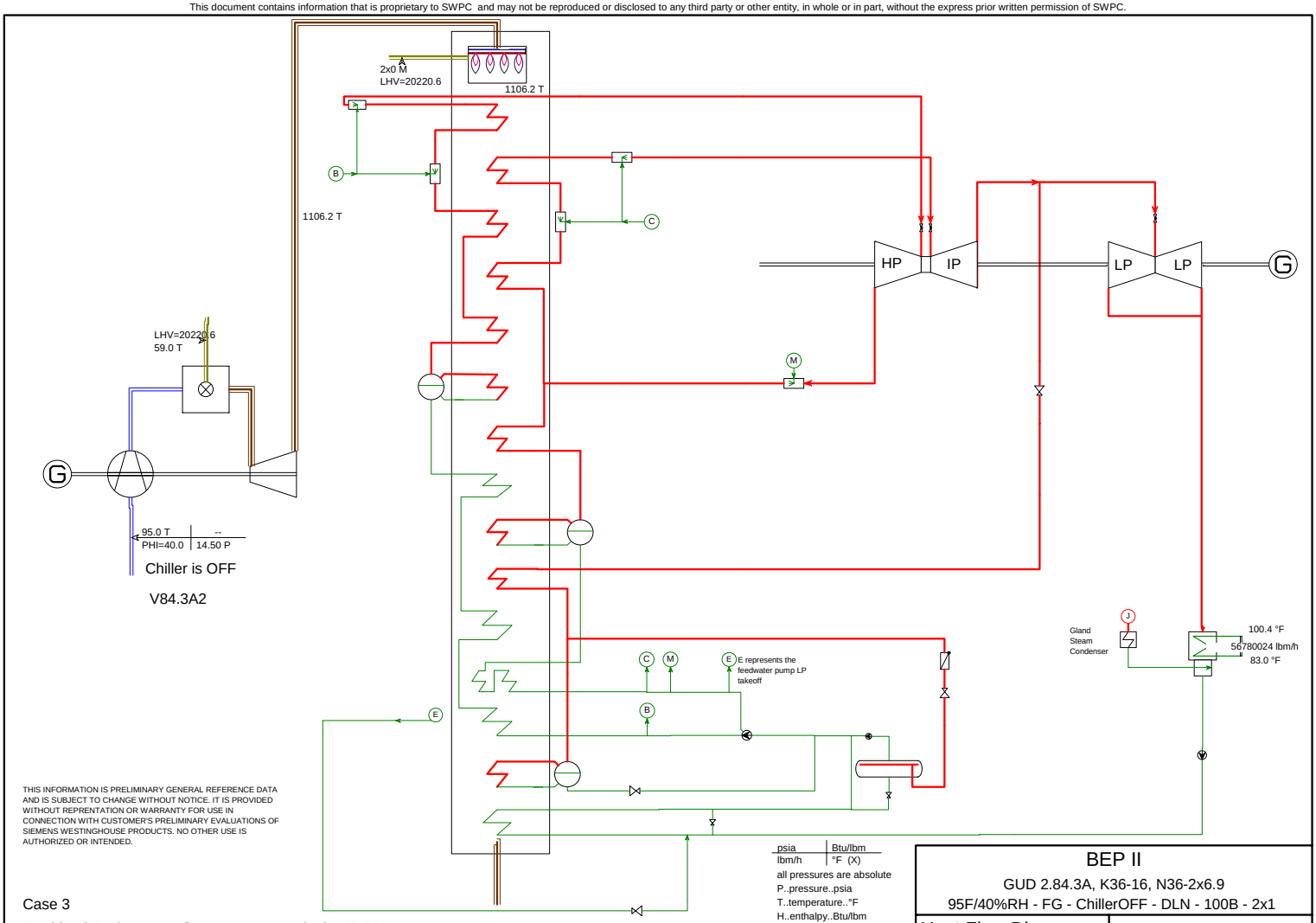
59F/60%RH - FG - ChillerON - DLN - 100B - 2x1

Heat Flow Diagram

No.280599 -A 712- HFD10001 D2

Orlando, Jan/07/2004 RDH

SWPC
A 712



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Case 3

Combined Cycle Power @ Generator Terminal: 468.380 MW

For Information only

psia | Btu/lbm
lbm/h | °F (X)

all pressures are absolute
P..pressure..psia
T..temperature..°F
H..enthalpy..Btu/lbm
M..mass flow..lbm/h
PHI..atmospheric humidity..%
fuel sensible heat included

BEP II

GUD 2.84.3A, K36-16, N36-2x6.9

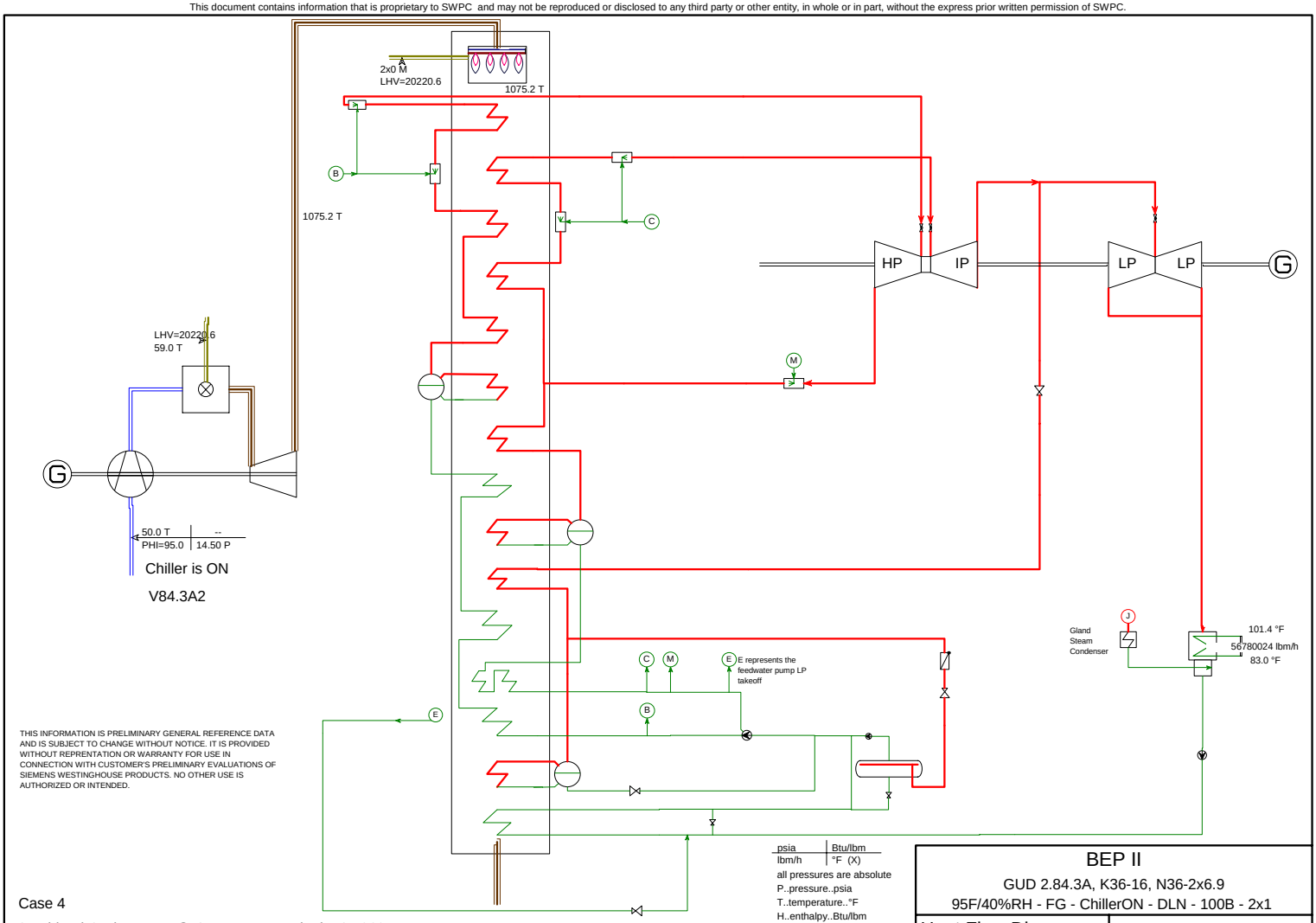
95F/40%RH - FG - ChillerOFF - DLN - 100B - 2x1

Heat Flow Diagram

No.280599 -A 712- HFD10001 D2

Orlando, Jan/07/2004 RDH

SWPC
A 712



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psia | Btu/lbm
lbm/h | °F (X)

all pressures are absolute
P..pressure..psia
T..temperature..°F
H..enthalpy..Btu/lbm
M..mass flow..lbm/h
PHI..atmospheric humidity..%
fuel sensible heat included

Case 4

Combined Cycle Power @ Generator Terminal: 531.960 MW

For Information only

BEP II

GUD 2.84.3A, K36-16, N36-2x6.9

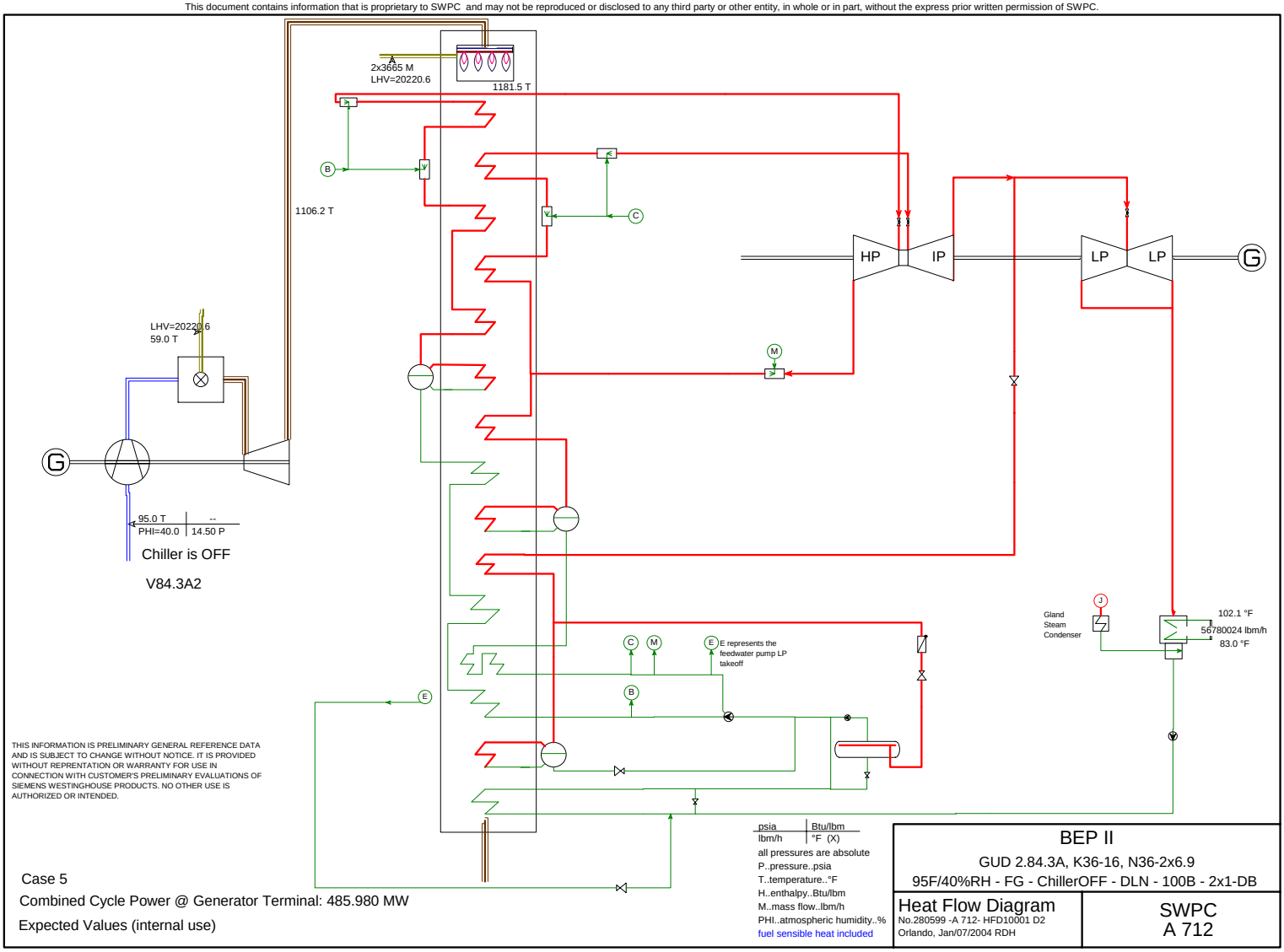
95F/40%RH - FG - ChillerON - DLN - 100B - 2x1

Heat Flow Diagram

No.280599 -A 712- HFD10001 D2

Orlando, Jan/07/2004 RDH

SWPC
A 712



psia | Btu/lbm
lbm/h | °F (X)

all pressures are absolute
P..pressure..psia
T..temperature..°F
H..enthalpy..Btu/lbm
M..mass flow..lbm/h
PHI..atmospheric humidity..%
fuel sensible heat included

Case 5
Combined Cycle Power @ Generator Terminal: 485.980 MW
Expected Values (internal use)

BEP II

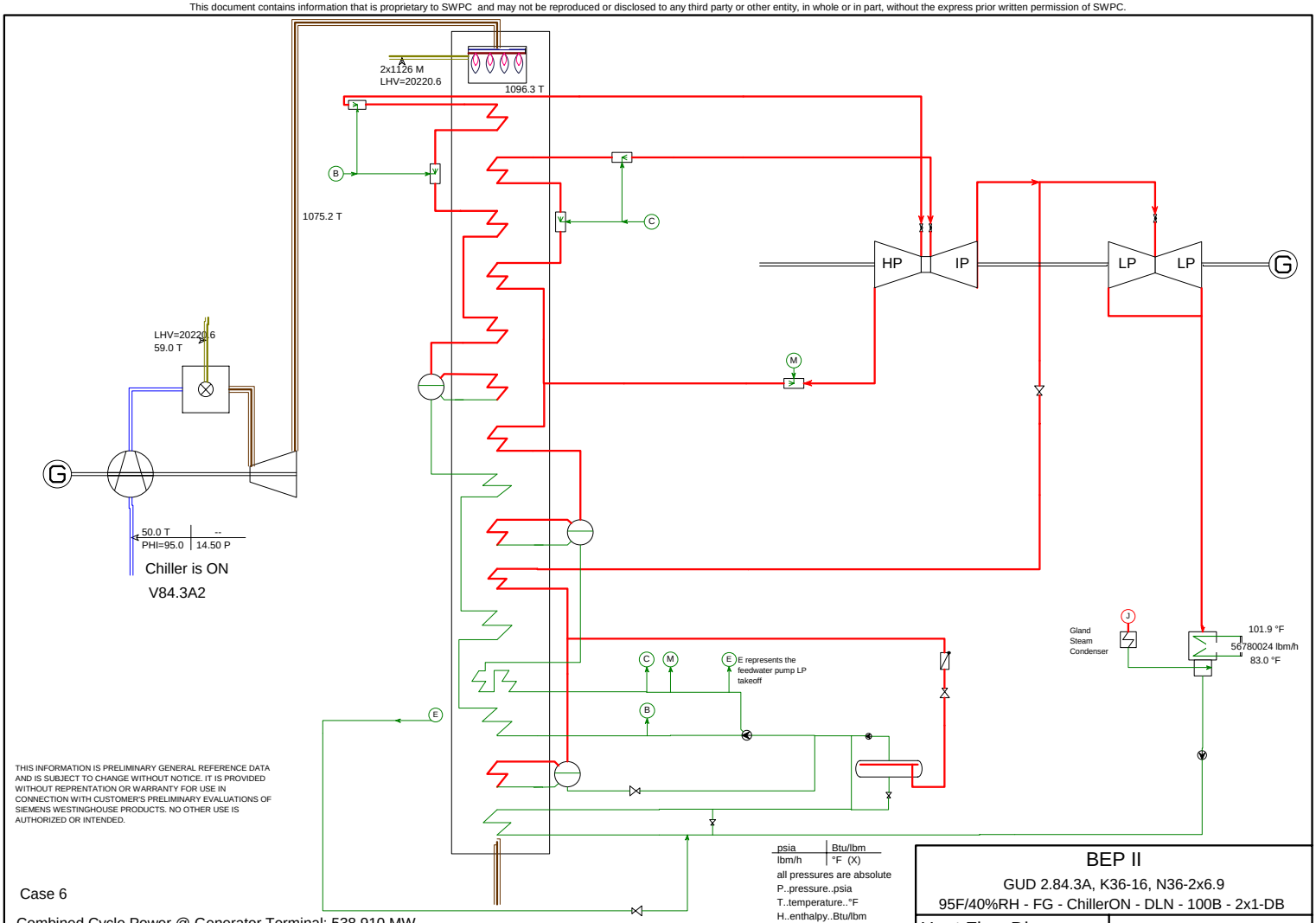
GUD 2.84.3A, K36-16, N36-2x6.9
95F/40%RH - FG - ChillerOFF - DLN - 100B - 2x1-DB

Heat Flow Diagram

No.280599 -A 712- HFD10001 D2
Orlando, Jan/07/2004 RDH

SWPC
A 712

JOB IDENTIFICATION : C:\shengj\Blythe II\Blythe Model\D02_Blythe_energy.gek; Lp.70; shengj; 07.Jan.2004 16:57:29; V1.7.15



psia | Btu/lbm
lbm/h | °F (X)

all pressures are absolute
P..pressure..psia
T..temperature..°F
H..enthalpy..Btu/lbm
M..mass flow..lbm/h
PHI..atmospheric humidity..%
fuel sensible heat included

Case 6

Combined Cycle Power @ Generator Terminal: 538.910 MW

For Information only

BEP II

GUD 2.84.3A, K36-16, N36-2x6.9

95F/40%RH - FG - ChillerON - DLN - 100B - 2x1-DB

Heat Flow Diagram

No.280599 -A 712- HFD10001 D2

Orlando, Jan/07/2004 RDH

SWPC
A 712

ATTACHMMENT 6

TO

SOIL AND WATER

COMMENTS

Blythe II

Estimated Cooling Tower Evaporation Rates for Various Ambient and Operating Conditions

Case	$T_{dry\ bulb}$	Relative Humidity	Inlet Air Cooling	Duct Firing	Cooling Tower Evaporation (GPM)
1	59°F	60%	No	No	1480
2	59°F	60%	Yes, to 50°F	No	1490
3	95°F	40%	No	No	2080
4	95°F	40%	Yes, to 50°F	No	2095
5	95°F	40%	No	Yes	2140
6	95°F	40%	Yes, to 50°F	Yes	2145
7	110°F	5%	No	No	2540
8	110°F	5%	Yes, to 50°F	No	2555
9	110°F	5%	No	Yes	2595
10	110°F	5%	Yes, to 50°F	Yes	2610
11	97.4°F	23.8%	Yes, to 50°F	No	2260
12	94.5°F	28.7%	Yes, to 50°F	No	2180
13	91°F	27.9%	Yes, to 50°F	No	2140

This table was received from Siemens Westinghouse on 27JAN04

Traffic and Transportation

Applicant's Comments to BEP II Preliminary Staff Assessment Traffic and Transportation		
Number	**Comment**	**Page**
1	The text states the "expansion site" is unimproved. CB II notes a significant amount of grading and compaction has already occurred at BEP II Site as part of the BEP. Specifically, as a result of the CEC's approval of BEP License Amendment 1B, Blythe Energy placed over 200,000 cubic yards of fill resulting from the construction of the retention basin and evaporation ponds.	4.10-4
2	The text refers to the City's Plan Review requiring "....BEP II accommodate the future installation of a Class II bike lane by including in the site plan sufficient width of pavement on the north side of Hobsonway". CB II has agreed to provide the City access to the area between Hobsonway and the existing fence to accommodate their future plans for a Bike Lane. Additionally, the City will not require CB II to perform any improvements to existing streets to support construction of BEP II. Staff should correct these sections.	4.10-6
3	The text refers to Figure 2.0-24 from the July 2002 AFC for a depiction of construction parking and laydown areas. The site arrangement has been revised subsequent to the submittal of the July 2002 AFC. The area available for parking and laydown shown on Figure 2.0-24 is no longer correct. Only the area on the "western" 76 acres will be available since BE constructed a second evaporation pond. We note however, the 10 acre laydown space (BEP Amendment 1A) will be available for use by CB II. Therefore there is sufficient space on the BEP II Site for laydown and parking.	4.10-10
4	The section headed "Oversize and Overweight Loads" includes a statement "Staff has recently learned in communication with City staff that Hobsonway cannot be used for these oversized/heavy loads because of the new medians being constructed on Hobsonway...". CB II has discussed this matter with Jennifer Wellman of the City and concluded there is not currently an issue with using the same offloading area for rail shipments. Correspondence from CB II to the City of Blythe and from the City of Blythe to the CEC noting the lack of interference of the heavy haul trailers with the Hobsonway medians is included as Attachment 1. Prior to commencing construction of BEP II, CB II will submit a Traffic Management Plan to the City of Blythe for review and comment. During construction, prior	4.10-11

Traffic and Transportation

	to "heavy hauls" involving the rail siding area, CB II and the City will coordinate the shipping routes so there are minimal impacts to local traffic. This is the process that was followed for the construction of BEP and there were no significant issues that arose. Staff does not need to perform any additional evaluations.	
5	The text states "If discharge from the cooling towers could under any circumstances form a visible plume, then the current best available technology shall be utilized to disperse such a plume". The requirement for current best available technology to be utilized if under any circumstances a visible plume is formed is overly restrictive. CEC and Blythe Energy are in the process of performing additional testing to determine if there exist any impacts to pilot safety. It is important to note that it has yet to be demonstrated there are impacts to pilot safety. "Flyovers" of BEP have been performed during both summer and winter conditions without any detectable impacts. CB II would expect the FSA to address the final conclusions.	4.10-14
6	Staff has indicated the double circuit transmission towers will be approximately 145 feet in height. CB II clarifies that we propose to construct 125 feet tall single circuit towers.	
7	The paragraph headed "Linear Facilities" states that "The water line for BEP II will interconnect on-site with existing BEP I transmission; the natural gas pipeline may also connect with the on-site existing BOP pipeline." CB II clarifies 1.) the natural gas supply line to BEP II will interconnect on-site with the completed natural gas line that serves BEP and 2.) BEP and BEP II raw water supply systems may be interconnected; no agreement currently exists between CB II and Blythe Energy to authorize this interconnection.	4.10-15
8	The paragraph headed "Linear Facilities" states that "The BEP II electrical connection would be to the Buck Boulevard substation located in the northwest corner of the Project site". CB II clarifies the existing Buck Boulevard substation is in the northeast corner of the project site.	4.10-15
9	In the section headed "Response to Public and Agency Comments" Staff quotes a letter which states "It is imperative that we ascertain the compatibility of the two power plants operating in close proximity to the airport before Plant #2 is built". Staff notes they are continuing to assess the impact of BEP II thermal and visual plumes on aviation safety. Staff should also address the impact on aviation safety from the thermal plume that would be	4.10-19

	created by the project's use of an air cooled condenser instead of a cooling tower as recommended in the Soils and Water section.	
10	CB II notes the only item in the "Recommendation" section of the PSA which is required for FSA is the completion of Staff's assessment of the BEP II visual plume on airport safety.	4.10-20

TRAFFIC AND TRANSPORTATION

CONDITIONS OF CERTIFICATION

TRANS-1 The project owner should encourage the development of a construction traffic control plan that limits peak hour construction-period truck and commute traffic in coordination with the City of Blythe Public Works Department and the County of Riverside Public Works Department. The project owner should also consult with City of Blythe and County of Riverside staff dealing with traffic regulation enforcement, and the California Highway Patrol to develop measures intended to minimize speeding by construction-related vehicles. Specifically, the overall traffic control plan should include the following:

a) Verbal and written instructions to construction workers and related suppliers, intended to raise awareness of existing speeding problems on area roadways.

~~b) The EPC and major subcontractors should develop and implement a construction employee carpool program;~~

c) ~~The worker education and shift scheduling, maximize worker commute trips during off-peak hours (off-peak hours are (1) before 6:00 AM; (2) between 9:00 AM and 4:00 PM; and (3) after 6:00 PM); or the hours agreed to by the CPM.~~

~~d)~~ Schedule heavy vehicle equipment and building material deliveries as well as the movement of materials and equipment to the site, including the adjacent laydown area to occur during ***times approved by the City and the CPM.*** ~~off-peak hours (off-peak hours are (1) before 6:00 AM; (2) between 9:00 AM and 4:00 PM; and (3) after 6:00 PM); or any limited deviations from this time frame, with CPM approval, and options for continuation of this program into the operation period pursuant to City Circulation Element Objective 3.0; or hours agreed to by the CPM.~~

~~The construction traffic control and transportation demand management program should also include the following restrictions on construction traffic addressing the following issues for linear facilities:~~

e) ~~Signing, lighting, and traffic control device placement;~~

f) ~~Temporary travel lane closures and potential need for flagmen;~~

g) ~~Maintaining access to adjacent residential and commercial properties; and~~

h) ~~Emergency access.~~

Verification: At least 60 days prior to start of mobilization, the project owner shall provide to the City of Blythe, the County of Riverside, and the California Highway Patrol for review and comment, and to the CPM for review and approval, a copy of their construction traffic control plan

CB II Comments:

CB II suggests the BE Condition of Certification **TRANS – 4** be utilized in lieu of this requirement. Reference to any "Pipeline" activities should be deleted.

CB II has provided comments to Staff's proposed condition as well. CB II does not agree the requirement to implement a construction worker carpool program is appropriate for the BEP II project. While this requirement is based on City of Blythe General Plan goals, it does not reflect the impact of the construction traffic on local roads or the nature of the construction workforce. Most construction workers are not permanent residents of the Blythe area; in general, the Los Angeles basin area provides the construction workforce. Construction workers typically travel from the Los Angeles basin area at the beginning of the workweek (Sunday or Monday) and return on weekends (Friday or Saturday). This transient characteristic of the construction workforce makes a carpool program impractical. Also, though we recognize the carpool program is a goal of the City of Blythe General Plan, a carpool program for the BEP II facility would not reduce traffic in the City of Blythe.

We do not agree the requirement to maximize worker commute trips to off peak hours should be a condition of certification for this Project location. In the summer months, start times after 8 a.m. could have an adverse effect on worker health and safety because of the additional extreme high temperature conditions to which the workforce would be exposed. Also, the remote location of the site and its proximity to an I-10 interchange mitigate the impact worker commute trips to the job site on traffic in the City of Blythe.

The requirement to schedule the movement of "all" material and equipment to site during off-peak hours unless specifically authorized by the City of Blythe is a more appropriate requirement. This was not a specific condition for BEP and movement of material and equipment during BEP construction did not cause any specific problems. Most deliveries occur during these off-peak hours. We do not agree the requirement to schedule deliveries to off-peak hours should be continued into the operation period. As noted on page 4.10-12 of the PSA, we

estimate that there will be two truck round trips to the plant daily. It is not practical to have differing conditions for BEP and BEP II

Items h) through k) apply to linear facilities; this is not relevant to BEP II.

~~**TRANS-2** The project owner shall comply with California Department of Transportation (Caltrans) and other affected jurisdictions' limitations on vehicle sizes and weights. In addition, the project owner or their contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.~~

~~**Verification:** In the Monthly Compliance Reports, the project owner shall submit copies of any oversize and overweight transportation permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.~~

BEP II Comment:

CB II does not agree with the Staff's Proposed Condition. CB II suggests Staff implement **TRANS – 1** from the BEP Conditions of Certification. Staff's proposed condition does not impose any additional requirements which are not already a requirement of LORS.

~~**TRANS-3** The project owner shall ensure compliance with Caltrans and other relevant jurisdictions' limitations for encroachment into public rights-of-way, and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.~~

~~**Verification:** In the Monthly Compliance Reports, the project owner shall submit copies of any encroachment permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.~~

BEP II Comment:

CB II requests Staff to implement **TRANS-2** from the BEP Conditions of Certification in order to maintain consistency between the two projects.

~~**TRANS-4** The project owner shall ensure that permits and/or licenses are secured from the California Highway Patrol and Caltrans for the transport of all hazardous materials, and that all federal and State regulations for the transport of hazardous materials are observed.~~

~~**Verification:** The project owner shall include in its Monthly Compliance Reports during construction and Annual Compliance Reports during operations~~

~~copies of all permits and licenses acquired by the project owner concerning the transport of hazardous materials.~~

BEP II Comment:

CB II requests Staff to implement **TRANS-3** from the BEP Conditions of Certification in order to maintain consistency between the two projects.

~~**TRANS-5** Prior to the construction of the power plant and all related facilities, the project owner shall develop a parking and staging plan for all phases of project construction, to enforce a policy that all project related parking occurs on-site or in designated off-site parking areas.~~

~~**Verification:** At least 60 days prior to the start of site mobilization, the project owner shall submit the plan to the City of Blythe Public Works staff for review and comment, and to the CPM for review and approval. The material submitted to the CPM shall include documentation of the City's review and comments. Monthly Compliance Reports submitted to the CPM shall describe the project owner's actions to ensure that this condition is being met.~~

CB II Comment:

CB II does not agree with the Staff's Proposed Condition. CB II has stated that all parking and laydown during the construction of BEP II will be within the fenceline of the project. Staff fails to identify any impact that would require mitigation by this condition. Such a condition was not required during the construction of BEP and there were no issues or problems with parking or laydown during construction of BEP.

~~**TRANS-6** Prior to the beginning of site mobilization activities, the project owner shall prepare a road mitigation plan for any roads affected by oversize or overweight vehicles to the County of Riverside and the City of Blythe Public Works Departments, and the CPM. The intent of this plan is to insure that any roads affected by oversize or overweight vehicles will be repaired and reconstructed to original or as near original condition as possible. This plan shall:~~

~~i) Document the pre-construction condition of the roads, prior to the start of site mobilization, the project owner shall provide to the CPM photographs or videotape of the roads affected in the region of the site.~~

~~j) Document any portions of roads that may be inadequate to accommodate oversize or large construction vehicles, and complete remediation measures that are necessary;~~

~~k) Provide appropriate bonding or other assurances to insure that any damage to a road due to construction activity will be remedied by the project owner;~~

~~l) Relocate utility poles if necessary, to insure that adequate clear zones are established along the property frontage; and~~

~~m) Reconstruct portions of roads that are affected by the installation of underground utilities.~~

~~**Verification:** At least 90 days prior to the start of site mobilization, the project owner shall submit a road mitigation plan focused on restoring the roads to their pre-project condition to the County of Riverside and the City of Blythe for review and comment and to the CPM for review and approval.~~

CB II Comment:

The Condition as proposed by Staff is not acceptable. CB II suggests Staff implement **TRANS – 5** from the BEP Conditions of Certification. This condition was specifically prepared and negotiated during the licensing of BEP. The condition was acceptable for BE and presents requirements specific to BEP. CB II is not aware of any changes to the BEP II setting that would require another version of this condition be created.

~~**TRANS-7** The HRSG stacks and any other project structures (e.g., transmission line towers, and cooling towers or other cooling structures) with the potential to obstruct navigable air space, as determined by the Federal Aviation Administration (FAA), shall have the lighting and markings required by the FAA so that the stacks and other project structures do not create a hazard to air navigation.~~

~~The project owner shall submit to the FAA Form 7460-1, Notice of Proposed Construction or Alteration and supporting documents on how the project plans to comply with stack (and other structures, if needed) lighting and marking requirements imposed by the FAA.~~

~~**Verification:** At least 30 days prior to the start of construction, the project owner shall provide copies of the FAA Form 7460-1 with copies of the FAA response to Form 7460-1, to the CPM and the City of Blythe Planning Department.~~

CB II Comment:

CB II does not agree with the Staff's Proposed Condition. FAA has reviewed the stack heights and determined there are no issues associated with the proposed location or height. FAA does not require permanent lighting or markings. In any event, compliance with LORS is a general requirement for the Project. There is no need for Staff to specifically call out specific requirements of LORS and make them conditions of certification. CB II suggests this condition be deleted.

TRANS-8 The project owner shall comply with the following:

- Any ***permanent installation or equipment*** ~~use~~ is prohibited which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at ~~an~~ ***Blythe a****A*~~a~~irport.~~, other than an FAA-approved navigational signal light or visual approach slope indicator.~~
- Any ~~use~~ ***permanent installation or equipment*** is prohibited which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at ~~an~~ ***Blythe a****A*~~a~~irport.

Verification: ~~30 days before construction start t~~***T***he project owner shall submit to the CPM documentation of compliance with ~~the~~ ***Conditions VIS-2 and VIS-5*** ~~above requirements~~ ***within 30 days of those conditions being satisfied.***

CB II Comment:

CB II does not see the need for such a condition although the condition is acceptable as modified. BEP II will essentially copy BEP. There was not specific CEC condition for the construction and operation of BEP. We suggest the condition only be applied to permanent plant structures and equipment. Also, we note though the motivation for the condition is different than the motivation for the Visual Resources conditions noted in the suggested verification, the end result is the same. We believe this condition is redundant (with VIS-2 and VIS-5) and could be eliminated completely.

ATTACHMENT 1

TO

TRAFFIC
AND
TRANSPORTATION

COMMENTS

CITY OF BLYTHE

235 North Broadway / Blythe, California 92225
Phone (760) 922-6161 / Fax (760) 922-4938

March 22, 2004

Subject: Blythe Energy Project Phase II Construction Heavy Hauls

Dear Mr. Pfanner:

The City of Blythe has received information on the heavy hauls of equipment which will occur during construction of the proposed Blythe Energy Project Phase II (BEP II). BEP II submitted the information to the City of Blythe in consideration of concerns expressed in the Traffic and Transportation section of the Energy Commission's BEP II Preliminary Staff Assessment.

The attached letter from Caithness Blythe II (CB II) provides information which confirms the heavy haul trailer will not interfere with the newly constructed median islands in Hobsonway when using the preferred route from the rail off-loading site (Commercial St. in Blythe) to the BEP II project site.

CB II has also proposed alternate routes for the heavy hauls from Commercial St. to the BEP II construction site. The alternates are depicted in the attached CB II letter. The alternate routes avoid the remodeled/reconstructed portions of Hobsonway except for a crossing of Hobsonway at Commercial St. for one of the proposed alternate routes.

The preferred route (Commercial St. to Hobsonway) and the proposed alternate routes are acceptable to the City. Further, the City has been advised, should any damage whatsoever is done to any City infrastructure during the course of the heavy haul activity, that damage will be repaired to the City's satisfaction.

The City expects the CEC will implement Conditions of Certification similar to TRANS-4 and TRANS-5 which were observed during the construction of the Blythe Energy Project Phase I. The conditions provide assurance to the City that:

- plans will be submitted for City review, and
- corrective actions will be taken by CB II in the event damage occurs during heavy hauls

If you have any questions, please do not hesitate to call me at (760) 921-2740.

Very truly yours,

Charles Hull
Assistant City Manager

108-032-X017

FILE COPY

ATTACHMENT 2

TO

TRAFFIC
AND
TRANSPORTATION

COMMENTS

Blythe Energy Project Phase II

Caithness Blythe II, LLC
15770 W. Hobsonway
P.O. Box 879
Blythe, CA 92226
760.922.2957

03/22/04

Mr. Charles "Butch" Hull
Assistant City Manager
City of Blythe
235 N Broadway
Blythe, CA 92225

Dear Mr. Hull:

Caithness Blythe II (CB II) has proposed using Hobsonway for heavy hauls during the construction of the Blythe Energy Project Phase II (BEP II). In response to concerns identified by the California Energy Commission (CEC) regarding oversized and overweight deliveries to BEP II, we have investigated the arrangement of the Hobsonway median islands near the intersection of Hobsonway and Commercial St. and confirmed that the location of the median islands will allow for turning of the heavy haul equipment from southbound Commercial St. to Hobsonway without interfering with the Hobsonway median islands. The CEC concerns noted above are documented in the Traffic and Transportation section of the BEP II CEC Preliminary Staff Assessment and correspondence between the CEC and Jennifer Wellman of the City of Blythe.

The attached sketch superimposes the semi-trailer wheel track template for an 18 meter radius turn on the Hobsonway/Commercial St. intersection. The turn will be into the eastbound lane of Hobsonway, heading west. The eastbound lanes of Hobsonway will be used between Ash St. and Commercial St. by the heavy haul trailer. West of Ash St. the heavy haul trailer will use the westbound lane of Hobsonway for the remainder of the route to the BEP II construction site. The wheel track template was obtained from the Caltrans Highway Design Manual.

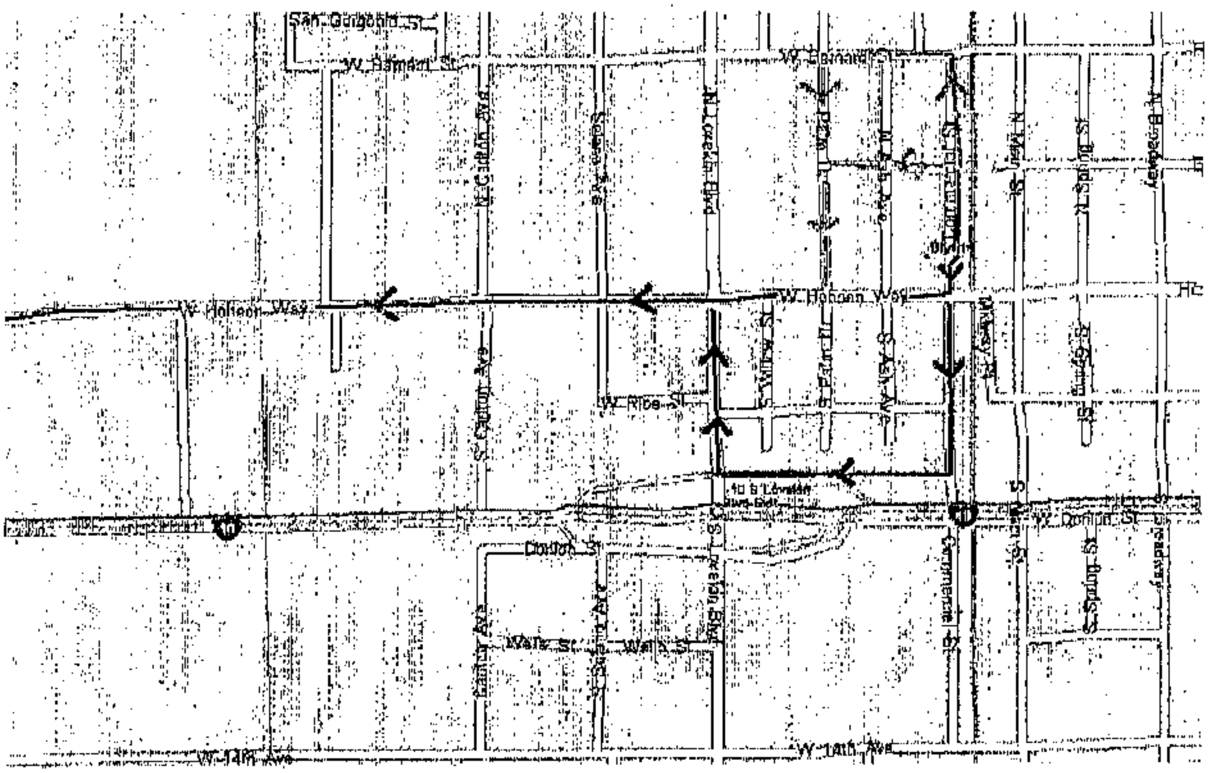
Also attached is a sketch of the heavy haul tractor and trailer used for BEP heavy hauls and a sketch of the turning radius for the heavy haul tractor and trailer. Though the tractor and trailer are longer and the trailer wider than the STAA semi-trailer used for the Caltrans wheel track template, the heavy haul trailer will have a smaller turning radius (the trailer's wheels can turn, reducing the turning radius), allowing the heavy haul tractor trailer combination to stay within the 18 meter radius Caltrans template.

The number and types of heavy hauls from the rail off-loading site at Commercial St. to the BEP II site will be similar to the heavy hauls made during the construction of the original Blythe Energy project.

Also attached is a sketch that shows potential alternate routes from the rail off-loading site to different entry points on Hobsonway. These routes avoid the reconstructed portions of Hobsonway except for crossing Hobsonway at Commercial St. for one of the options. These alternate routes were reviewed with City Engineer Bill Brunet. While we believe that the route on Hobsonway entering from Commercial St. is the most appropriate route for heavy hauls from the rail off-loading site, it is clear that there are other viable alternatives. However, if any damage whatsoever is done to any City infrastructure during the course of the heavy haul activity, that damage will be repaired to the City's satisfaction.

If you have any questions on this, please contact us.

Robert K. Holt, P.E.
Resident Engineer
Blythe Energy Project Phase II


W Hobson Way
W Rice St
Dorton St
Walls St
W 14th Ave
W Donlon St
N Lovekin Blvd
S Carlton Ave
N Main St
N Spring St
N Broadway
10 & Lovekin Blvd Exit

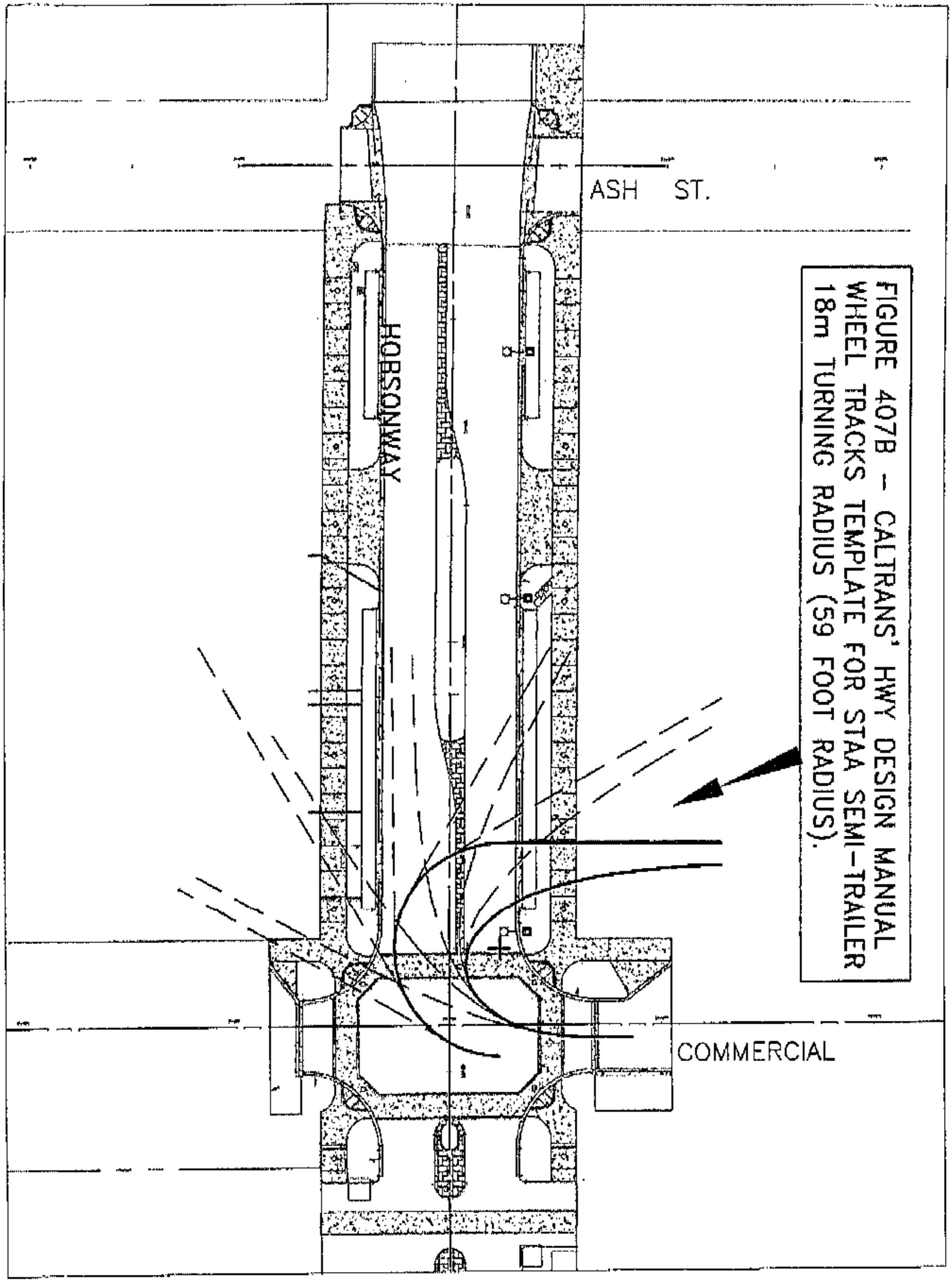
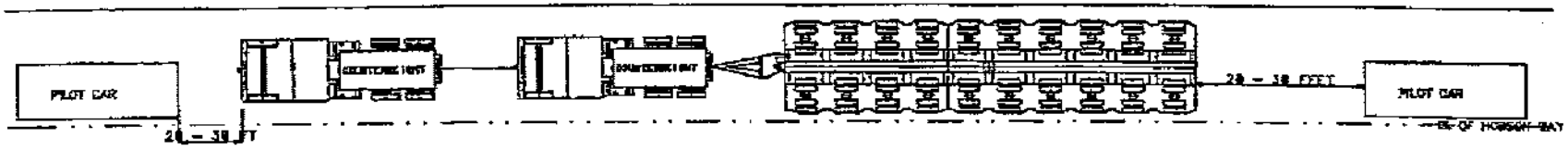


FIGURE 407B – CALTRANS' HWY DESIGN MANUAL WHEEL TRACKS TEMPLATE FOR STAA SEMI-TRAILER 18m TURNING RADIUS (59 FOOT RADIUS).



CUSTOMER:	BRAGG CRANE & RIGGING CO.
ITEM:	PILOT CAR POSITIONS
FROM:	RAIL SIDING, COMMERCIAL & HOBSON WAY
TO:	JOB SITE, BURT BLVD.
EQUIPMENT:	2 PILOT CARS, 2 CWT TRACTORS, 10-LINE G/H
DATE:	8/9/01
DRAWING TITLE:	PILOT CAR POSITIONS

HEAVY TRANSPORT, INC.

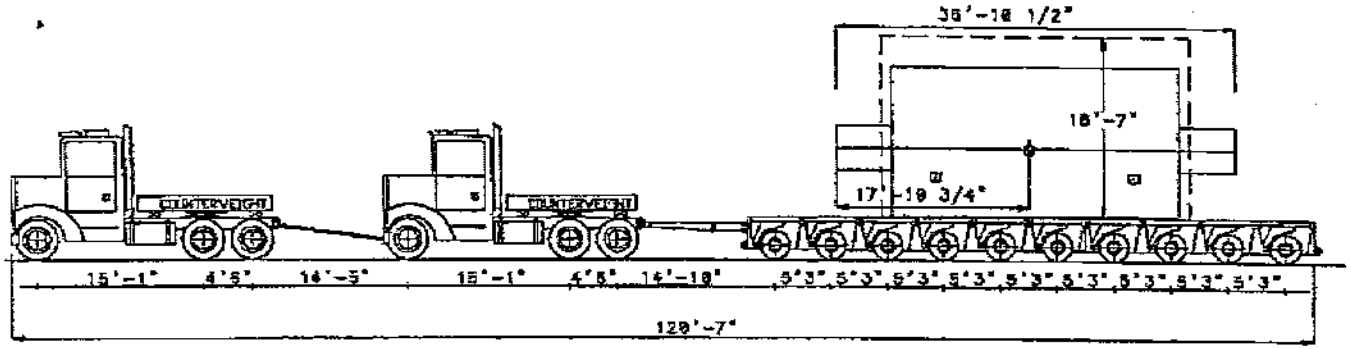
5251 Paramount Blvd., Long Beach, CA 90805
Phone(562) 984-2400 Fax (562) 984-2469

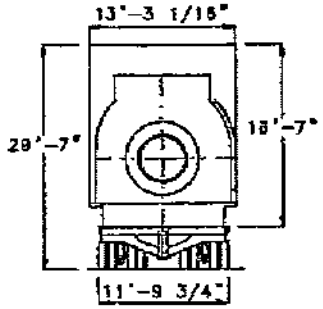
SCALE: 1" = 10'

WEIGHTS—	Trailer Tare	Net Weight	Gross Weight
	105,800	586,424	692,224

	FRONT	REAR	TOTAL
TRACTOR	12,000	34,000	46,000
TRACTOR	12,000	34,000	46,000

DISTRIBUTION (Trailer)		
Tires	8.25X16 18 PLY	
Number of Tires	80	
Tire Footprint	71	Sq. in.
Weight Per Tire	8,653	Pounds
Weight Per Sq.In.	122	psi
Weight Per Sq.Ft.	1,116	psf (Shadow)
Weight Per Axle	69,220	Pounds





CUSTOMER:	BRAGG CRANE & RIGGING CO
ITEM:	GENERATOR
FROM:	RAIL SIDING, BLYTHE
TO:	BLYTHE ENERGY SITE, BLYTHE
EQUIPMENT:	10-LINE GOLDHOFER, 2 CWT TRACTORS
DATE:	REV. 1 8/17/01
DRAWING TITLE:	GENERATOR LOADED

HEAVY TRANSPORT, INC.

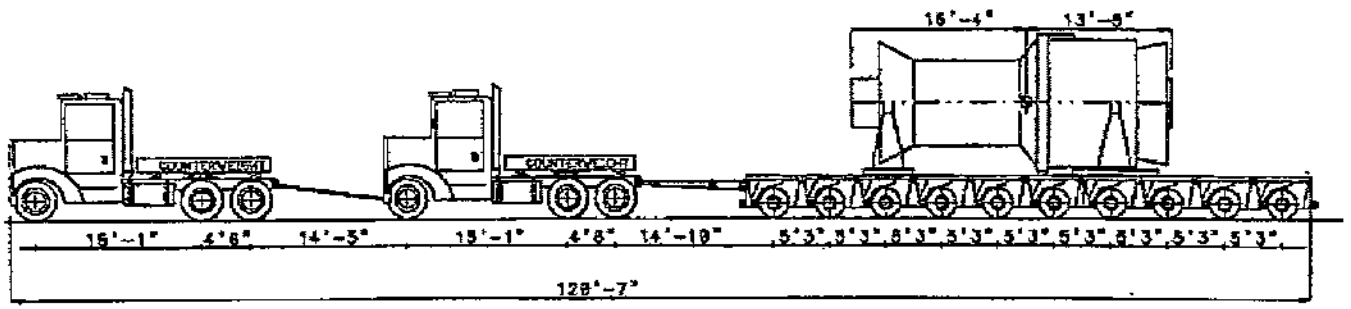
5251 Paramount Blvd., Long Beach, CA 90805
Phone (562) 984-2480 Fax (562) 984-2469

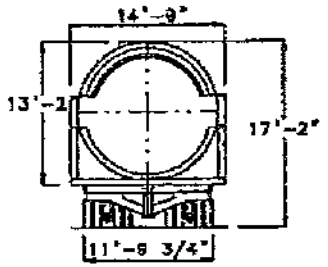
SCALE: 1" = 15'

WEIGHTS--	Trailer Tare	Net Weight	Gross Weight
	105,800	392,419	498,219

	FRONT	REAR	TOTAL
TRACTOR	12,000	34,000	46,000
TRACTOR	12,000	34,000	46,000

DISTRIBUTION (Trailer)		
Tires	8.25X15 18 PLY	
Number of Tires	60	
Tire Footprint	71	Sq. In.
Weight Per Tire	6,228	Pounds
Weight Per Sq.In.	88	psi
Weight Per Sq.Ft.	503	psf (Shadow)
Weight Per Axle	49,820	Pounds





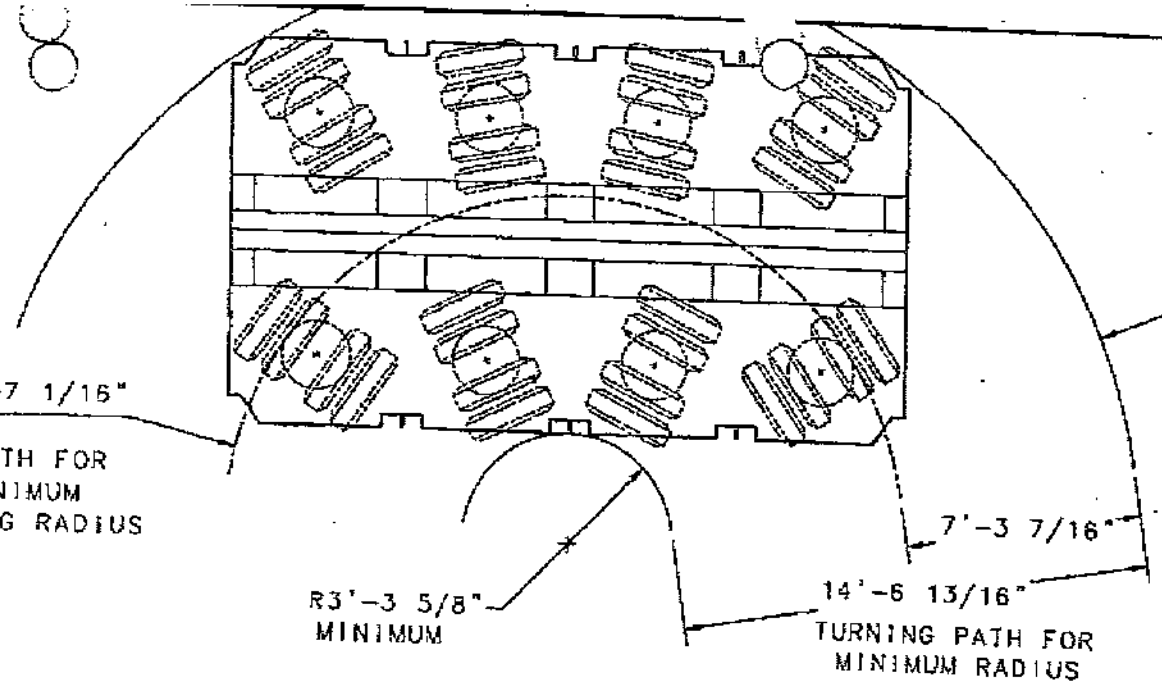
CUSTOMER:	BRAGG CRANE & RIGGING CO
ITEM:	GAS TURBINE
FROM:	RAIL SIDING, BLYTHE
TO:	BLYTHE ENERGY SITE, BLYTHE
EQUIPMENT:	10-LINE GOLDHOFER, 2 CAT TRACTORS
DATE:	7/27/01
DRAWING TITLE:	GAS TURBINE LOADED

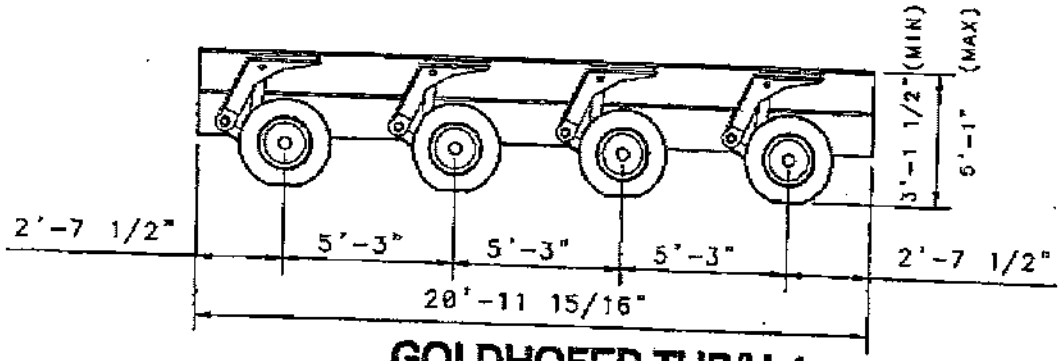
HEAVY TRANSPORT, INC.

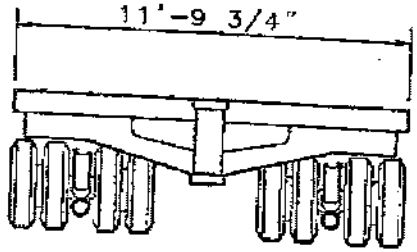
5251 Paramount Blvd., Long Beach, CA 90805
Phone (562) 984-2400 Fax (562) 984-2459

SCALE: 1" = 16'

DATE: 08-14-2008
BY: K. IRONMILER







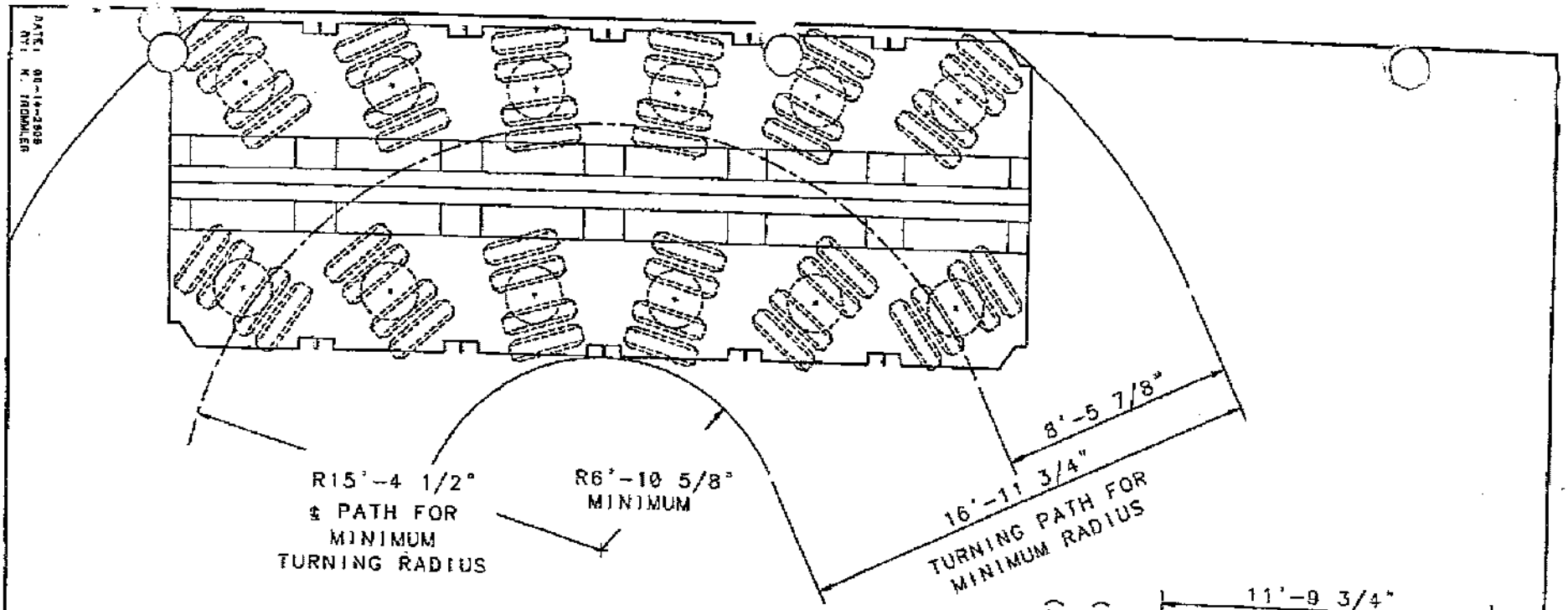
GOLDHOFER THP/H 4

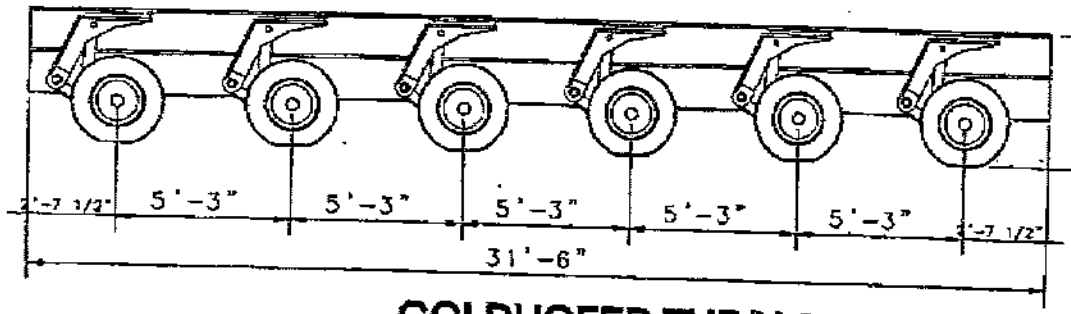
HYDRAULIC PLATFORM TRAILER

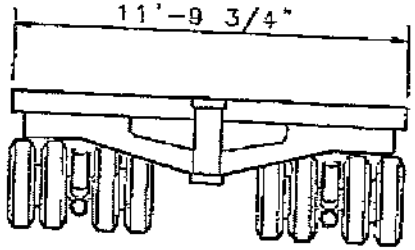
TARE WEIGHT	= 44,080 LBS	
PAYLOAD	= 240,000 LBS	(87.3% OF CAP.)
GROSS WEIGHT	= 284,080 LBS	
	/ 4 AXLES	
LOAD PER AXLE	= 71,020 LBS	
	/ 8 TIRES	
LOAD PER TIRE	= 8,878 LBS	

3/16" = 1'

BRAGG CRANE & RIGGING CO.
9251 PARAMOUNT BLVD., LONG BEACH, CALIFORNIA
TEL(562)984-2400 FAX(562)984-2448







GOLDHOFER THP/H 6

HYDRAULIC PLATFORM TRAILER

TARE WEIGHT	= 66,120 LBS	
PAYLOAD	= 240,000 LBS	(58.5% OF CAP.)
GROSS WEIGHT	= 306,120 LBS	
	/ 6 AXLES	
LOAD PER AXLE	= 51,020 LBS	
	/ 8 TIRES	
LOAD PER TIRE	= 6,378 LBS	

3/16" = 1'

BRAGG CRANE & RIGGING CO.
5251 PARAMOUNT BLVD., LONG BEACH, CALIFORNIA
TEL.(562)984-2400 FAX(562)984-2468

TRANSMISSION LINE SAFETY AND NUISANCE

Applicant's Comments to BEP II Preliminary Staff Assessment Transmission Line Safety and Nuisance		
Number	**Comment**	**Page**
1	No Comments.	

CB II accepts the proposed Transmission Line Safety and Nuisance Conditions as written. The BEP II proposed transmission Line Safety and Nuisance Conditions are listed below.

TLSN-1 The project owner shall ensure that the proposed on-site 500 kV project line is designed and constructed according to the requirements of CPUC's GO-95, GO-52, the applicable sections of Title 8, California Code of Regulations section 2700 et seq., and Western's EMF reduction guidelines arising from CPUC Decision 93-11-013.

Verification: Thirty days before starting construction of the BEP II transmission lines or related structures and facilities, the project owner shall submit to the Compliance Project Manager (CPM) a letter signed by a California registered electrical engineer affirming compliance with this requirement.

TLSN-2 The project owner shall ensure that every reasonable effort will be made to identify and correct, on a case-specific basis, any complaints of interference with radio or television signals from operation of the project-related lines and associated switchyards.

The project owner shall maintain written records, for a period of five years, of all complaints of radio or television interference attributable to operation of the plant and the corrective action taken in response to each complaint. Complaints not leading to a specific action or for which there was no resolution should be noted and explained. The record shall be signed by the project owner and also the complainant, if possible, to indicate concurrence with the corrective action or agreement, with the justification for a lack of action.

Verification: All reports of line-related complaints shall be summarized for the project-related lines and included for the first five years' of plant operation in the Annual Compliance Report.

TLSN-3 The project owner shall engage a qualified consultant to measure the strengths of the electric and magnetic fields from the proposed on-site 500 kV lines and the BEP I lines to be utilized. For the new 500 kV line, the measurements shall be made at the related switchyard and the points of maximum field intensity along the on-site route. The fields from the BEP II line to be utilized shall be measured at the Substations and the locations along the route for which the applicant presented field strength estimates. All measurements should be made

according to Institute of Electrical and Electronics Engineers (IEEE) measurement protocols.

Verification: The project owner shall file copies of the pre-and post-energization measurements with the CPM within 30 days after completion of the measurements, which shall be initiated within 60 days from the beginning of operations.

TLSN-4 The project owner shall ensure that the route of the project's on-site 500 kV line is kept free of combustible material according to existing Western practices reflecting compliance with the provisions of Section 4292 of the Public Resources Code and Section 1250, Title 14, of the California Code of Regulations.

Verification: At least 30 days before the line is energized, the project owner shall transmit to the CPM a letter confirming compliance with this condition.

TLSN-5 The project owner shall ensure that all permanent metallic objects within the right-of-way of the proposed 500 kV on-site lines are grounded according to industry standards.

Verification: At least 30 days before the line is energized, the project owner shall transmit to the CPM a letter confirming the intention to comply with this condition. A confirmatory letter of compliance shall be transmitted to the CPM within 30 days of completing the grounding operations.

Visual Resources

Applicant's Comments to BEP II Preliminary Staff Assessment Visual Resources		
Number	**Comment**	**Page**
1	Visual Resources Table 1 and the text provided with the table have several incorrect dimensions for plant components. A marked up copy of the table with revised dimensions is provided as Attachment 1.	4.12-6
2	The section headed "Switchyard" notes the BEP II generation facilities would be connected directly to the Buck Boulevard Substation and as a result would not require a separate switchyard. A generation T&D collector area north of the generator step up transformers is planned. This area would include breaker positions and takeoff structures. The collector area, called the integration switchyard, is shown on the arrangement drawings that have been provided to the CEC as part of the revised BEP II Project Description.	4.12-6
3	A 12.4 acre area, central to the 152 acre BEP site is identified to be used for construction laydown and parking. Because of changes made to the BEP evaporation pond arrangement, all of the 12.4 acres identified in figure 2.0-24 of the AFC will not be available for BEP II construction laydown and parking. However, BEP II will use the 9.3 acre area just to the west of the BEP facility previously utilized for BEP construction. The sum of the 9.3 acres from BEP construction and the available area east of the BEP II equipment, 2.5 acres, will provide adequate construction laydown and parking for BEP II. The revised BEP II Project description includes a drawing that identifies the proposed laydown and parking areas while taking into account the completed BEP plant.	4.12-7
4	The section headed "Switchyard, Electrical Transmission Interconnection, and Linear Facilities" states "BEP II would interconnect on-site with the existing (BEP I) support infrastructure (electric, gas, water, brine return)". We clarify BEP II will have interconnections with existing infrastructure for electric transmission and fuel gas supply. BEP II may interconnect with existing BEP water supply. BEP II may extend a brine line to the BEP evaporation ponds. Similarly, the section headed "Liner Facilities" on page 4.12-24 describes interconnections for water and brine return.	4.12-9 4.12-24

Visual Resources

5	Staff has not accurately described the setting of the BEP project. CB II notes approximately ½ of the existing BEP fenceline along Hobsonway is landscaped with plants. These plants, when fully grown will extend to a height of approximately 12 feet which will mostly block the view of BEP for any traffic along Hobsonway. .	4.12-11
6	Staff has indicated the overall visual sensitivity for KOP 3 is moderate. Staff concluded however, in its assessment of BEP the viewer sensitivity is low. CB II does not agree with Staff's assessment that there should be a difference between BEP and BEP II from KOP 3.	4.12-13
7	Staff has indicated the overall visual sensitivity for KOP 4 is low to moderate. Staff concluded however, in its assessment of BEP the viewer sensitivity is low. CB II does not agree with Staff's assessment that there should be a difference between BEP and BEP II from KOP 4.	4.12-14
8	Staff has indicated the overall visual sensitivity for KOP 5 is moderate to high. Staff concluded however, in its assessment of BEP the viewer sensitivity is low to moderate. CB II does not agree with Staffs assessment that there should be a difference between BEP and BEP II from KOP 5. The KOP is approximately 4.5 miles distant and in fact, BEP II is further from KOP 5 than BEP is, so we do not agree with Staff's assessment.	4.12-15
9	Staff has indicated the overall visual sensitivity for KOP 7 is moderate. Staff concluded however, in its assessment of BEP the viewer sensitivity is low to moderate. CB II does not agree with Staffs assessment that there should be a difference between BEP and BEP II from KOP 7 even though BEP II is slightly closer to the KOP.	4.12-17
10	Staff has indicated that Construction activities will result in short term adverse, but not significant visual impacts. This is the same conclusion Staff reached for BEP construction activities. Staff has proposed VIS-1 to mitigate the impacts of BEP II construction. Nothing has changed in the project settings other than BEP II is closer to Hobsonway than BEP II. Viewer exposure is not significantly different during the construction activities for either project. There were no complaints regarding the construction of BEP, therefore additional visual impact mitigation as proposed by Staff is unnecessary and unwarranted.	4.12-18
11	Staff should revise the conclusions relative to CEQA to reflect CB II's comments #5 - #10.	4.12-26
12	The section on "Mitigation of Construction Impacts" proposes "The project owner shall require from its	4.12-30

Visual Resources

	contractors that all facility construction sites and staging, material, and equipment storage areas be visually screened from adjacent public roads and nearby residences." We note this proposed mitigation measure does not acknowledge the location of the proposed laydown areas or the recently completed BEP I facility. "Adjacent public roads" is interpreted to mean Hobsonway, Buck Boulevard, and Riverside Avenue. The proposed laydown areas are essentially screened from view along Buck Boulevard by the BEP I evaporation pond berms, the retention basin berm and the BEP facility and Buck Blvd. Substation. We believe additional mitigation features along Buck Blvd. would provide little to no visual screening of BEP II laydown areas. Similarly, views of the BEP II laydown areas from the paved portion of Riverside Avenue directly north of BEP I are substantially screened by the BEP I facility, especially the BEP cooling tower. Riverside Ave. west of the BEP facility is unpaved and used very infrequently. We see little merit in visual screening on this infrequently used unpaved road. Views of laydown areas from Hobsonway would substantially be screened by BEP II construction activities and equipment and the existing BEP evaporation pond berms. Also, we note the existence of electrical transmission poles and an 8' high security "landscaped" fence between Hobsonway and the construction site and laydown areas. We contend screening of "all facility construction sites" is impractical and not supported by Staff's own finding of insignificant impact. Therefore the mitigation is unwarranted.	
13	Staff has proposed the planting of California Fan Palms and dense foliage native trees along ½ of the western site boundary, along Hobsonway and also along ½ of Buck Blvd. CB II does not believe Staff has an accurate view of the existing BEP site nor the existing landscaping requirements. CB II notes 1.) Landscaping must be approved by the City of Blythe – CEC's proposed landscaping method would not be acceptable to the City, 2.) USFWS will need to issue either a Biological Opinion or a consistency determination – USFWS will not approve the Staff suggestions for landscaping and 3.) CB II has indicated there are no plans to perform any work outside the project fenceline.	4.12-31

Visual Resources

CB II GENERAL COMMENT:

CB II suggests the BEP Conditions of Certification are acceptable and applicable to the BEP II project. Staff has not raised any new significant or cumulative impacts other than those which were identified for BEP. The mitigation measures as proposed by staff and approved by the Commission in March 2001 are still applicable and are appropriate for BEP II. We will provide specific comments to the Staff's recommended conditions in our comments below. **BEP Conditions of Certification are as follows:**

VIS-1 ***Prior to first synchronization of the project, the project owner shall treat the project structures, buildings, and tanks in an earthen hue or hues that minimize visual intrusion and contrast by blending with the surrounding landscape, and shall treat those items and the switchyard structures and electric transmission towers in a non-reflective finish. The project owner shall develop a specific treatment plan for CEC approval to ensure that the proposed colors do not unduly contrast with the surrounding landscape colors. The plan shall be submitted sufficiently early to ensure that any precolored buildings, structures, and linear facilities will have colors approved and included in bid specifications for such buildings or structures.***

Protocol: The project owner shall submit a treatment plan for the project to the Compliance Project Manager (CPM) for review and approval. The treatment plan shall include:

- ***specification of the treatment proposed for use on project structures, including structures treated during manufacture, and 11' x 17" color simulations of the project with the proposed treatment;***
- ***a list of each major project structure, building, and tank, specifying the color(s) proposed for each item;***
- ***documentation that a non-reflective finish will be used on all project elements visible to the public;***
- ***a detailed schedule for completion of the treatment; and***
- ***a procedure to ensure proper treatment maintenance for the life of the project.***

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the plan, the project owner shall submit a revised plan to the CPM.

After approval of the plan by the CPM, the project owner shall implement the plan according to the schedule and shall ensure that the treatment is properly maintained for the life of the project.

Visual Resources

For any structures that are treated during manufacture, the project owner shall not specify the treatment of such structures to the vendors until the project owner receives notification of approval of the treatment plan by the CPM.

The project owner shall not perform the final treatment on any structures until the project owner receives notification of approval of the treatment plan from the CPM.

The project owner shall notify the CPM within 7 (seven) days after all precolored structures have been erected and all structures to be treated in the field have been treated and the structures are ready for inspection.

Verification: At least 60 (sixty) days prior to ordering the first structures that are color treated during manufacture, the project owner shall submit its proposed plan to the CPM for review and approval.

If the CPM notifies the project owner that any revisions of the plan are needed before the CPM will approve the plan, within 30 (thirty) days of receiving that notification, the project owner shall submit to the CPM a revised plan.

Not less than 30 (thirty) days prior to first synchronization of the project, the project owner shall notify the CPM that all structures treated during manufacture and all structures treated in the field are ready for inspection.

The project owner shall provide a status report regarding treatment maintenance in the Annual Compliance Report.

VIS-2 All fencing for the project shall be non-reflective.

Protocol: Prior to ordering the fencing the project owner shall submit to the CPM for review and approval the specifications for the fencing documenting that such fencing will be non-reflective.

If the CPM notifies the project owner that revisions of the specifications are needed before the CPM will approve the submittal, the project owner shall submit to the CPM revised specifications.

The project owner shall not order the fencing until the project owner receives approval of the fencing submittal from the CPM.

The project owner shall notify the CPM within 7 (seven) days after the fencing has been installed and is ready for inspection.

Visual Resources

Verification: Prior to first turbine roll and at least 30 (thirty) days prior to ordering the non-reflective fencing, the project owner shall submit the specifications to the CPM for review and approval.

If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 30 (thirty) days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within 7 (seven) days after completing installation of the fencing that the fencing is ready for inspection.

VIS-3 ***Prior to first synchronization of the project, the project owner shall design and install all lighting such that light bulbs and reflectors are not visible from public viewing areas and illumination of the vicinity and the nighttime sky is minimized. To meet these requirements:***

Protocol: ***The project owner shall develop and submit a lighting plan for the project to the CPM for review and approval. The lighting plan shall require that:***

- ***Lighting is designed so that exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of this outdoor lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary;***
- ***High illumination areas not occupied on a continuous basis such as maintenance platforms or the main entrance are provided with switches or motion detectors to light the area only when occupied; and***
- ***A lighting complaint resolution form (following the general format of that in Attachment 1) will be used by plant operations, to record all lighting complaints received and document the resolution of those complaints. All records of lighting complaints shall be kept in the on-site compliance file.***

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the plan, the project owner shall prepare and submit to the CPM a revised plan.

Lighting shall not be installed before the plan is approved. The project owner shall notify the CPM when the lighting has been installed and is ready for inspection.

Verification: At least 90 (ninety) days before ordering the exterior lighting, the project owner shall provide the lighting plan to the CPM for review and approval.

If the CPM notifies the project owner that any revisions of the plan are needed before the CPM will approve the plan, within 30 (thirty) days after receiving that notification the project owner shall submit a revised plan to the CPM.

The project owner shall notify the CPM within seven (7) days of completing exterior lighting installation that the lighting is ready for inspection.

VIS-4 The project owner shall provide landscaping satisfactory to the City of Blythe Planning Department.

Protocol: The project owner shall submit a landscaping plan to the CPM for review and approval. The submittal shall include evidence that the plan is satisfactory to the City of Blythe Planning Department.

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the submittal, the project owner shall submit to the CPM a revised plan.

The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

Verification: Prior to first synchronization of the project and at least 60 (sixty) days prior to installing the landscaping, the project owner shall submit the plan to the CPM for review and approval.

If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 30 (thirty) days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within 7 (seven) days after completing installation of the landscaping, that the landscaping is ready for inspection.

VIS-5 The project owner shall provide soil restoration and revegetation satisfactory to the City of Blythe Planning Department.

Protocol: The project owner shall submit a soil restoration and revegetation plan to the CPM for review and approval. The submittal shall include evidence that the plan is satisfactory to the Director of the City of Blythe Planning Department.

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the submittal, the project owner shall submit to the CPM a revised plan.

The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

Verification: Prior to first synchronization of the project and at least 60 (sixty) days prior to undertaking soil restoration and re-vegetation, the project owner shall submit the plan to the CPM for review and approval.

If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 30 (thirty) days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within 7 (seven) days after completing installation of the landscaping, that the soil restoration and revegetation is ready for inspection.

VISUAL RESOURCES

PROPOSED CONDITIONS OF CERTIFICATION

Construction Screening and Surface Restoration

VIS-1 ~~To minimize the visual impacts of project construction, the project owner shall screen the project site, including staging areas and material and storage areas, from public views from nearby residences and public roadways.~~

~~Upon completion of project construction the project owner shall remove all evidence of construction activities, including ground disturbance due to staging and storage areas and pipeline construction, and shall restore all disturbed areas.~~

~~The project owner shall submit to the CPM for review and approval and to the City of Blythe for review and comment a specific screening and surface restoration plan whose proper implementation will satisfy these requirements.~~

~~The project owner shall not implement the screening and surface restoration plan until receipt of written approval from the CPM.~~

Visual Resources

CB II Comment:

As stated in #12 above, CB II does not accept this condition. No similar condition regarding screening was imposed on the BEP project and we are not aware of complaints regarding the visual impact of construction activities or changes to regulations or LORS that would require any different condition than that which was implemented for BEP. In addition, Staff's own analysis found no significant impact.

Also, the BEP II site has been disturbed by the addition of over 200,000 cubic yards of fill from the construction of the BEP retention basin and evaporation ponds. The fill has been graded and compacted. BEP II will not be constructed in an undisturbed area.

CB II suggests that the portion of this condition that relates to surface restoration be replaced by BEP Condition VIS-5 to maintain consistency between the projects.

Surface Treatment of Project Structures and Buildings

VIS-2 Prior to first ***synchronization*** ~~turbine roll~~, the project owner shall treat all project structures, buildings, and fences in appropriate colors or hues that minimize visual intrusion and contrast by blending with the landscape, such that those structures, buildings, and fences have surfaces that do not create glare. The selection of colors must not contrast substantially with the colors applied to the BEP I project. The project owner shall submit for CPM review and approval, a specific treatment plan whose proper implementation will satisfy these requirements. The treatment plan shall include:

a) Specification, and 11" x 17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture;

b) A list of each major project structure, building, tank, transmission line tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation);

c) Two sets of brochures and/or color chips for each proposed color;

d) Samples approximately 6" x 9" of each proposed treatment and color on each surface material to which they would be applied that would be visible to the public;

e) A detailed schedule for completion of the treatment; and

f) A procedure to ensure proper treatment maintenance for the life of the project.

Verification: The project owner shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated on site, until the project owner receives notification of approval of the treatment plan by the CPM.

The project owner shall submit its proposed treatment plan at least 960 days prior to ordering the first structures that are color treated during manufacture. Within 30 days following the start of commercial operation, the project owner shall notify the CPM that all buildings and structures are ready for inspection. The project owner shall provide a status report regarding treatment maintenance in the Annual Compliance Report.

CB II Comment:

This condition should be replaced with BEP Condition of Certification VIS-1.

LANDSCAPING

VIS-3 ~~The project owner shall provide landscaping that improves the appearance of the proposed project. Two offset rows of trees shall be planted along the western, southern (Hobsonway), and southern half of the eastern (Buck Boulevard) BEP property boundaries. The inner row (closest to the proposed project) should be native California Fan Palms. The outer row must be comprised of dense foliage native trees.~~

~~The project owner shall submit the landscaping plan to the CPM for review and approval and to the City of Blythe for review and comment. The plan shall include but not necessarily be limited to:~~

~~a)An 11"x17" color simulation of the proposed landscaping at 5 years as viewed from KOP 3;~~

~~b)A plan view to scale depicting the project and the location of landscaping;~~

~~c)a)~~ ~~A detailed list of plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity.~~

Verification: ~~Prior to first turbine roll and at least 90 days prior to installing the landscaping, the project owner shall submit the landscaping plan to the CPM for review and approval and to the City of Blythe for review and comment.~~

~~If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 30 days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.~~

~~The project owner shall complete installation of the landscaping prior to the start of commercial operation. The project owner shall notify the CPM within seven~~

~~days after completing installation of the landscaping, that it is ready for inspection.~~

CB II Comment:

As indicated in CB II Comment #13 above, CB II suggests this condition be replaced by BEP condition **VIS-4** in order to maintain consistency between two adjacent projects. Staff has not provided any background in the PSA which suggests any change in the regulatory environment, nor changes in LORS, nor significant visual impacts that would be offset with Staffs proposed mitigation which would require any different condition than was implemented for BEP.

CONSTRUCTION LIGHTING

VIS-4 The project owner shall ensure that lighting for ~~construction~~ ***operation*** of the power plant is used in a manner that minimizes potential night lighting impacts, as follows:

a) All lighting shall be of minimum necessary brightness consistent with worker safety.

b) ***To the extent that is practical and consistent with worker,*** ~~A~~all fixed position lighting shall be shielded, hooded, and directed downward to minimize backscatter to the night sky and direct light trespass (direct lighting extending outside the boundaries of the construction area).

c) Wherever feasible and safe, lighting shall be kept off when not in use and motion detectors shall be employed.

d) A lighting complaint resolution form (following the general format of that in Appendix VR-2) shall be used by plant construction management, to record all lighting complaints received and to document the resolution of that complaint.

Verification: Within seven days after the first use of construction lighting, the project owner shall notify the CPM that the lighting is ready for inspection. ***The Owner shall notify the CPM via the Monthly Compliance Report of any significant proposed or implemented changes to the construction lighting plan.***

If the CPM notifies the project owner that modifications to the lighting are needed to minimize impacts, within 15 days of receiving that notification the project owner shall implement the necessary modifications and notify the CPM that the modifications have been completed.

The project owner shall report any lighting complaints and documentation of resolution in the Monthly Compliance Report, accompanied by any lighting complaint resolution forms for that month.

Visual Resources

CB II Comment:

CB II has provided comments; however note Staff's condition is inappropriate for the construction activities. This condition was not required for construction of BEP, a nearly duplicate project. There were no complaints regarding the use of lighting during construction of BEP. There are no changes in the environmental setting nor LORS which would require such a condition.

PERMANENT LIGHTING

VIS-5 ~~The project owner shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project, the vicinity, and the nighttime sky is minimized. To meet these requirements the project owner shall submit a lighting mitigation plan that includes but is not necessarily limited to the following:~~

~~a)Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary;~~

~~b)All lighting shall be of minimum necessary brightness consistent with worker safety;~~

~~c)High illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have switches or motion detectors to light the area only when occupied;~~

~~A lighting complaint resolution form (following the general format of that in Appendix VR-2) shall be used by plant operations to record all lighting complaints received and document the resolution of those complaints. All records of lighting complaints shall be kept in the on-site compliance file.~~

~~**Verification:**At least 90 days prior to ordering any permanent exterior lighting, the project owner shall contact the CPM to arrange a meeting to discuss the documentation required in the lighting mitigation plan.~~

~~At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval a plan that describes the measures to be used and demonstrates that the requirements of the condition will be satisfied. The project owner shall not order any exterior lighting until it receives CPM approval of the lighting mitigation plan.~~

~~Prior to initial firing, the project owner shall notify the CPM that the lighting has been completed and is ready for inspection.~~

Visual Resources

~~The project owner shall report any complaints about permanent lighting and provide documentation of resolution in the Annual Compliance Report~~.

CB II Comment:

CB II suggests that this condition be replaced by **VIS-3** from the BEP conditions of certification to maintain consistency between the two adjacent projects.

Waste Management

Applicant's Comments to BEP II Preliminary Staff Assessment Waste Management		
Number	**Comment**	**Page**
1	The "Project and Site Description" notes that the "proposed location is on unimproved desert land". The Applicant would like to clarify that portions of the BEP II site have received over 200,000 cubic yards of excavated material from the BEP site. The areas that received BEP material have been compacted and graded.	4.13-2

CB II General Comment:

CB II suggests the Staff consider use of the BEP Conditions of Certification for BEP II. It is important the two projects have consistent requirements for long term compliance and reporting requirements. CB II sees no reason to modify the originally approved BEP conditions with the exception of incorporating language to requiring monitoring only when excavations penetrate the original site grade (prior to relocating excess soils from BEP). **The BEP Conditions are as follows:**

BEP Conditions of Certification

WASTE-1 ***The project owner shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste.***

Verification: The project owner shall keep its copy of the identification number on file at the project site and notify the CPM via the monthly compliance report of its receipt.

WASTE-2 ***Upon becoming aware of any impending waste management-related enforcement action, the project owner shall notify the CPM of any such action taken or proposed to be taken against it, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.***

Verification: The project owner shall notify the CPM in writing within 10 days of becoming aware of an impending enforcement action.

Waste Management

WASTE-3 ***Prior to the start of construction and prior to the start of operation, the project owner shall prepare and submit to the CEC CPM, for review and comment, a waste management plan for all wastes generated during construction and operation of the facility, respectively. The plans shall contain, at a minimum, the following:***

- ***A description of all expected waste streams, including projections of frequency and hazard classifications; and***
- ***Methods of managing each waste, including treatment methods and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans.***

Verification: No less than 30 days prior to the start of construction, or a lesser time period mutually agreed upon, the project owner shall submit the construction waste management plan to the CPM for review. The operation waste management plan shall be submitted no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions within 30 days of notification by the CPM (or mutually agreed upon date). In the Annual Compliance Reports, the project owner shall document the actual waste management methods used during the year compared to planned management methods.

WASTE-4 ***The project owner shall have an environmental professional available for consultation during soil excavation and grading activities which occur in previously undisturbed areas. The environmental professional shall meet the qualifications of such as defined by the American Society for Testing and Materials designation E 1527-97 Standard Practice for Phase I Environmental Site Assessments as evidenced by one of the following or similar credentials: (1) Certified Industrial Hygienist with experience in worker exposure monitoring, (2) Qualified Environmental Professional certification, (3) Registered Environmental Assessor II, or (4) Registered Professional Engineer with experience in remedial investigation and feasibility studies.***

Verification: At least 30 days prior to the start of construction, the project owner shall submit the qualifications and experience of the environmental professional to the CPM for approval.

WASTE-5 ***If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities as evidenced by discoloration, odor, or other signs, the environmental professional shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the project owner and CPM stating the recommended course of action, prior to any further construction activity at that location. If, in the opinion of the environmental professional, significant remediation may be required, the project owner shall contact representatives of the Riverside County Hazardous Materials and the Cypress regional office of the California Department of Toxic Substances Control for guidance and possible oversight.***

Verification: The project owner shall submit any reports filed by the environmental professional to the CPM within 5 days of their receipt.

WASTE MANAGEMENT

BEP II CONDITIONS OF CERTIFICATION

~~**WASTE-1** The project owner shall provide the resume of a Registered Professional Engineer or Geologist, who shall be available for consultation during soil excavation and grading activities, to the CPM for review and approval. The resume shall show experience in remedial investigation and feasibility studies.~~

~~The Registered Professional Engineer or Geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil.~~

~~**Verification:** At least 30 days prior to the start of site mobilization, the project owner shall submit the resume to the CPM for approval.~~

CB II Comment:
CB II suggests Staff implement BEP Condition **WASTE-4**. We see no need to have a slightly different requirement than BEP. Nothing has changed in the project setting for BEP II that would require any different compliance requirements.

Waste Management

WASTE-2 ~~If potentially contaminated soil is unearthed during excavation at the proposed site as evidenced by discoloration, odor, or other signs, the Registered Engineer or Geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the project owner and CPM stating the recommended course of action, prior to any further construction activity at that location.~~

~~Depending on the nature and extent of contamination, the Registered Engineer or Geologist shall have the authority to temporarily suspend construction activity at the location for the protection of workers or the general public. If, in the opinion of the Registered Engineer or Geologist, significant remediation may be required, the project owner shall contact representatives of the Riverside County Hazardous Materials Department, Colorado River Basin Regional Water Quality Control Board and the Cypress regional office of the California Department of Toxic Substances Control for guidance and possible oversight.~~

Verification: ~~The project owner shall submit any reports filed by the Registered Engineer or Geologist to the CPM within 5 days of their receipt. The project owner shall *notify the CPM within 24 hours of any orders issued to halt construction.*~~

CB II Comment:
CB II suggests Staff implement BEP Condition **WASTE-5**. We see no need to have a slightly different requirement than BEP. Nothing has changed in the project setting for BEP II that would require any different compliance requirements.

WASTE-3 ~~The project owner shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste.~~

Verification: ~~The project owner shall keep its copy of the identification number on file at the project site and notify the CPM via the Monthly Compliance Report of its receipt.~~

CB II Comment:

CB II suggests Staff implement BEP Condition **WASTE-1**. We see no need to have a slightly different requirement than BEP. Nothing has changed in the project setting for BEP II that would require any different compliance requirements.

Waste Management

~~**WASTE-4** Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.~~

~~**Verification:** The project owner shall notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the manner in which project-related wastes are managed.~~

CB II Comment:
CB II suggests Staff implement BEP Condition **WASTE-2**. We see no need to have a slightly different requirement than BEP. Nothing has changed in the project setting for BEP II that would require any different compliance requirements.

~~**WASTE-5** The project owner shall prepare a Construction Waste Management Plan and an Operation Waste Management Plan for all wastes generated during construction and operation of the facility, respectively, and shall submit both plans to the CPM for review and approval. The plans shall contain, at a minimum, the following:~~

- ~~A description of all waste streams, including projections of frequency, amounts generated and hazard classifications; and~~
- ~~Methods of managing each waste, including treatment methods and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans.~~

~~**Verification:** No less than 30 days prior to the start of site mobilization, the project owner shall submit the Construction Waste Management Plan to the CPM.~~

~~The operation waste management plan shall be submitted to the CPM no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions within 20 days of notification by the CPM.~~
~~In the Annual Compliance Reports, the project owner shall document the actual waste management methods used during the year compared to the planned management methods.~~

Waste Management

CB II Comment:
CB II suggests Staff implement BEP Condition **WASTE-3**. We see no need to have a slightly different requirement than BEP. Nothing has changed in the project setting for BEP II that would require any different compliance requirements.

Worker Safety

Applicant's Comments to BEP II Preliminary Staff Assessment Worker Safety and Fire Protection		
Number	**Comment**	**Page**
1	The text under the heading "Local" notes that "The City of Blythe adopted the 2001 edition of the California Fire Code (CFC) and is the administering agency for the CFC standards." Bullet points in this section state that applicable local (or locally enforced) requirements include "1998 Edition of California Fire Code and all applicable NFPA standards (24 CCR Part 9)". CB II requests confirmation of the Staff's position that the 2001 edition of the CFC is the relevant code.	4.14-3
2	The text under the heading "Setting" states that "BEP II would.....interconnect on-site with existing BEP transmission and natural gas pipelines". As a clarification, the electrical transmission interconnect will be with the existing Buck Boulevard substation on the northeast corner of the BEP site.	4.14-3
3	Under the heading "Setting" it is stated that "Both the BFD and RCFD indicated that some additional equipment may be necessary to deal with the specific needs of a power plant in order to mitigate the impacts on their fire department.". CB II contends the impact resulting from the BEP II project is the same as the impact from the completed BEP. The impact on the BFD from the BEP I project has been fully mitigated. The City of Blythe is in the process of performing a fire needs assessment for the BEP II. A consultant has provided a draft report. Although CB II will provide CEC with a copy of the final report, we do not agree it is required prior to completion of the FSA. For BEP a Condition of Certification required the fire needs assessment be completed and a letter provided by the City expressing its satisfaction, prior to the start of construction.	4.14-4
4	Under the heading "Worker Safety", text is included that states "One additional well will be added by BEP II with similar characteristics to the two existing BEP I wells..." CB II clarifies the BEP II facility will include two on-site wells.	4.14-6
5	In the section headed "Fire Protection" it is stated that "The BEP II fire protection system will be interconnected to the existing BEP fire protection system. The fire water will be supplied from the raw water storage tank constructed as part of the BEP I project..." CB II clarifies the BEP II and BEP raw water and fire water systems <u>may</u> be interconnected. Additionally, the BEP II will be provided	4.14-2

	with a raw water storage tank with a minimum capacity of 300,000 gallons for fire protection purposes.	
6	In the section headed "Fire Protection" it is stated that "...pumps capable of restoring water at a total maximum rate of 6,000 gallons/minute (BEPII 2002d, Page 2-17 and BEPII 2003b, DR-187)." While it is true that each of the BEP II well pumps will be rated for approximately 3000 gpm, the raw water supply system is not designed to have the pumps operate concurrently; a flow of 6000 gpm would not expected to be realized with both BEP II well pumps operating in parallel. Also, the fire suppression system is designed to accommodate the flow provided by a single 2500 gpm fire protection pump; operation of multiple well pumps would not increase the capacity of the fire pump system (note that the normal source of suction pressure for the fire protection pumps is gravity head from the raw water storage tank).	4.14-12
7	In the section headed "Fire Protection" it is stated that "A deluge type fire protection system will be provided for the combustion turbine generator. CB II clarifies the fire suppression systems for the combustion turbine generator will be similar to BEP systems, including suppression for the turbine and generator bearing areas, lube oil lines, and lube oil tank and filter area.	4.14-12
8	Staff has referenced conversations with Tony C'deBaca in several sections of the PSA. BEP II points out Mr. C'deBaca acted as the CBO for the BEP Project, thus the CEC's representative during the construction of BEP. He does not represent the City of Blythe nor Riverside County Fire Departments nor is he a member of their force. He has no authority to negotiate conditions on behalf of these entities nor is he an expert in these matters. We request CEC strike all reference to Mr. C'deBaca in this section.	Various

WORKER SAFETY AND FIRE PROTECTION

PROPOSED CONDITIONS OF CERTIFICATION

WORKER SAFETY-1 The project owner shall submit to the Compliance Project Manager (CPM) a copy of the Project Construction Safety and Health Program containing the following:

- A Construction Personal Protective Equipment Program;
- ~~A Construction Exposure Monitoring Program;~~
- A Construction Injury and Illness Prevention Program;
- A Construction Emergency Action Plan; and
- A Construction Fire Protection and Prevention Plan.

The Personal Protective Equipment Program, ~~the Exposure Monitoring Program,~~ and the Injury and Illness Prevention Program shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable Safety Orders. The Construction Emergency Action Plan and the Fire Protection and Prevention Plan shall be submitted to the City of Blythe Fire Department and the Riverside County Fire Department for review and comment prior to submittal to the CPM for approval.

Verification: At least 30 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a copy of the Project Construction Safety and Health Program. The project owner shall provide a letter from the City of Blythe Fire Department and the Riverside County Fire Department stating that they have reviewed and commented on the Construction Fire Protection and Prevention Plan and Emergency Action Plan.

CB II Comment:
Staff has not provided any discussion, references, nor program guidelines related to the Construction Exposure Monitoring Program. Staff has not concluded that workers will be exposed to materials requiring them to be monitored. This requirement was not imposed on BEP and should similarly not be imposed on BEP II. With the modification above, the proposed Condition is acceptable.

WORKER SAFETY-2 The project owner shall submit to the CPM a copy of the Project Operations and Maintenance Safety and Health Program containing the following:

- An Operation Injury and Illness Prevention Plan;
- An Emergency Action Plan;

- Hazardous Materials Management Program;
- Fire Protection and Prevention Program (8 CCR § 3221); and;
- Personal Protective Equipment Program (8 CCR §§ 3401-3411).

The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to the Cal/OSHA Consultation Service, for review and comment concerning compliance of the program with all applicable Safety Orders. The Operation Fire Protection Plan and the Emergency Action Plan shall also be submitted to the City of Blythe Fire Department and the Riverside County Fire Department for review and comment.

Verification: At least 30 days prior to the start of operation, the project owner shall submit to the CPM for approval a copy of the Project Operations and Maintenance Safety & Health Program. It shall incorporate Cal/OSHA Consultation Service's comments, if any, stating that they have reviewed and accepted the specified elements of the proposed Operations and Maintenance Safety and Health Plan. The project owner shall provide a letter from the City of Blythe Fire Department and the Riverside County Fire Department stating that they have reviewed and commented on the Operations Fire Protection and Prevention Plan and the Emergency Action Plan.

CB II Comment:
This proposed Condition is acceptable. We note however that the requirement for a Hazardous Materials Management Program is a requirement of HAZ-2. CEC should reference HAZ-2 in this condition. We would not expect the compliance requirements to be any different.

WORKER SAFETY-3 Prior to the delivery of ***ammonia*** ~~any hazardous materials~~ to the project site, the project owner shall train the personnel at the BEP II facility to the level of Hazmat Technicians capable of responding to hazardous materials incidents.

Verification: At least thirty (30) days prior to the delivery of ***ammonia*** ~~hazardous materials~~ to the site, the project owner shall provide the CPM with a letter indicating the number of employees that have been trained as Hazmat Technicians.

CB II Comment:
This proposed Condition is acceptable as modified above. This condition as originally written by Staff could apply to "any" hazardous construction materials – typically only in small quantities. Small quantities of construction materials would not require the type of training referenced in the condition. Permanent plant operations personnel will not be mobilized and trained to support construction activities until approximately 120 days prior to initial operation of the plant. It

would be more appropriate to tie this condition to delivery of ammonia as was done for BEP.

~~**WORKER SAFETY-4** The project owner shall provide a portable automatic cardiac defibrillator on site during construction and operation.~~

~~**Verification:** At least 30 days prior to the start of site mobilization the project owner shall submit to the CPM proof that a portable automatic cardiac defibrillator exists on site.~~

CB II Comment:
A cardiac defibrillator requires specific training and certification in order to use. CB II's construction contractor may not have this specific expertise available during the initial mobilization activities when the work force is relatively small. In addition, this condition has only been required in cases where there were traffic or other related transportation problems that delayed emergency response time to the site. Staff has made not showing to justify this requirement for BEP II.

FACILITY DESIGN

Applicant's Comments to BEP II Preliminary Staff Assessment Facility Design		
Number	**Comment**	**Page**
1	In the Section entitled "Setting", the description of the site should be modified to read ".....will occupy approximately 15 acres on the western portion of a 152 acre site, and....."	5.1-2
1	In the fourth paragraph of the section headed "Compliance Monitoring", the sentence reading, in part, "...Energy Commission staff will complete a Memorandum of Understanding..." should be revised to read **"...Energy Commission Staff and the Applicant will jointly complete a Memorandum of Understanding with that entity....."** CB II would like be party to preparation of this agreement as Blythe Energy was for BEP. It would be prudent for all parties to be involved in specifically addressing certain issues which could be avoided if process was agreed to up front.	5.1-4
2	In the last paragraph of the section headed "Compliance Monitoring" the last sentence reads "The applicant shall bear the responsibility to fully modify those elements of construction to comply with all design changes that result from the CBO's subsequent plan review and approval process." CB II recommends these elements of construction be specifically addressed in the MOU.	5.1-4
3	In the section headed "Recommendations" we suggest that the following additional recommendation be added: Periodic evaluations of the performance of the CBO be jointly conducted by representatives of the CEC and Applicant.	5.1-5
4	In the section headed "Recommendations", CB II suggests a review committee be established for the project to render interpretations of code requirements in the event there is a disagreement between the CBO and the Applicant. There were several examples of BEP where the CBO unilaterally made a code interpretation which was different than the licensed PE responsible for the design. There were also cases where the CBO differed with the plan checkers. CB II wishes to avoid issues like this, as they are very costly to the project. We request the CEC consider establishing a process to address these types of issues.	5.1-5

FACILITY DESIGN

CONDITIONS OF CERTIFICATION

GEN-1 The project owner shall design, construct and inspect the project in accordance with the ***2001***~~1998~~ California Building Standards Code (CBSC) (also known as Title 24, California Code of Regulations), which encompasses the California Building Code (CBC), California Building Standards Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering LORS in effect at the time initial design plans are submitted to the CBO for review and approval. (The CBSC in effect is that edition that has been adopted by the California Building Standards Commission and published at least 180 days previously.) All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the **Transmission System Engineering** section of this document.

In the event that the initial engineering designs are submitted to the CBO when a successor to the ***2001***~~1998~~ CBSC is in effect, the ***2001***~~1998~~ CBSC provisions identified herein shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

~~The project owner shall ensure that all contracts with contractors, subcontractors and suppliers shall clearly specify that all work performed and materials supplied on this project are to comply with the applicable codes listed above.~~

Verification: ~~Within 30 days after execution of any contract or subcontract, the project owner shall submit to the CPM a copy of that portion of the contract or subcontract containing language specifying that work under that contract or subcontract shall comply with the applicable codes listed in this Condition of Certification.~~ Within 30 days after receipt of the Certificate of Occupancy, the project owner shall submit to the CPM a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation and inspection requirements of the applicable LORS and the Energy Commission's Decision have been met in the area of facility design. The project owner shall provide the CPM a copy of the Certificate of Occupancy within 30 days of receipt from the CBO [***2001***~~1998~~ CBC, Section 109 – Certificate of Occupancy].

FACILITY DESIGN

CB II Comment:

CB II can accept the proposed condition as highlighted. CB II does not see the need to require confirmation to the CEC that all contracts include the specific requirements from GEN-1. It is CB II's responsibility to ensure that all contractors comply with LORS. It is already a requirement of Law to do so. It does not make sense for CEC to add another layer of enforcement, therefore we have stricken the appropriate language.

We would however suggest the reference to the "responsible design engineer" be expanded upon. In this condition the responsible design engineer is required to sign off and attest that ALL designs, construction, installation and inspection requirements of the applicable LORS and the CEC Decision have been met. In **GEN-5** the "design engineer" is responsible for structures and supports. It is not clear what CEC is requiring here and this was a problem at BEP getting the final signatures and certificates of occupancy. Is the CEC referring to "responsible engineers" or is CEC referring to the requirement further elaborated upon in **STRUCT-1**, Verification #5? If the requirement for **GEN-1** only relates to the areas of expertise indicated in **GEN-5**, then the condition should be re-written. Lastly, the CEC should elaborate on what the requirements are for the "statement of verification" which the responsible design engineer has to sign.

GEN-2 Prior to submittal of the initial engineering designs for CBO review, the project owner shall furnish to the CPM and to the CBO a schedule of facility design submittals, a Master Drawing List and a Master Specifications List. The schedule shall contain a list of proposed submittal packages of designs, calculations and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide specific packages to the CPM when requested.

Verification: At least 60 days (or project owner and CBO approved alternative timeframe) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule, the Master Drawing List and the Master Specifications List of documents to be submitted to the CBO for review and approval. These documents shall be the pertinent design documents for the major structures and equipment listed in **Facility Design Table 1** below. Major structures and equipment shall be added to or deleted from the table only with CPM approval. The project owner shall provide schedule updates in the Monthly Compliance Report.

FACILITY DESIGN

Table 1: Major Structures and Equipment List

Equipment/System	Quantity (Plant)
Combustion Turbine (CT) Foundation and Connections	2
Combustion Turbine Generator Foundation and Connections	2
Steam Turbine (ST) Foundation and Connections	1
Steam Turbine Generator Foundation and Connections	1
Auxiliary Transformer Foundation and Connections	2
CT Inlet Air Plenum Structure, Foundation and Connections	2
Heat Recovery Steam Generator (HRSG) Structure, Foundation and Connections	2
HRSG Stack Structure, Foundation and Connections	2
Cooling Tower Structure, Foundation and Connections	1
Boiler Feed Pump Foundation and Connections	3
Condensate Extraction Pump Foundation and Connections	3
Circulating Water Pump Foundation and Connections	2
Steam Surface Condensers Foundation and Connections	2
Condenser Evacuation Pump Foundation and Connections	2
Turbine Hall Overhead Crane	1
Continuous Emission Monitoring System Structure, Foundation and Connections	2
Aqueous Ammonia Storage System Foundation and Connections	1
Circulating Water System Dosing Foundation and Connections	1
Water Steam Cycle Dosing Foundation and Connections	1
High, Intermediate and Low Pressure Steam Systems	1 Lot
Reheat Steam System	1 Lot
Condensate and Feed Systems	1 Lot
Water Treatment System Brine Concentrator Foundation and Connections	1
Water Treatment System Demineralizer Foundation and Connections	1
Raw Water Storage Tank Foundation and Connections	1
Demineralized Water Storage Tank Foundation and Connections	1
Fuel Gas Heater Foundation and Connections	~~1~~2
~~Natural~~ ***Fuel*** Gas ~~Compressor~~ ***Scrubbing and Regulation*** Foundation and Connections	1
Fire Protection System Pumps Foundation and Connections	2
Workshop/Storage Building Structures, Foundation and Connections	1
Fire Pump House Foundation and Connections	1
Control Room Building Structures, Foundation and Connections	1
Boiler Feedwater Pump House Structures, Foundation and Connections	1
Secondary Unit Substation/Transformer	2

Equipment/System	Quantity (Plant)
Combustion Turbine Electrical/Control Center	2
Steam Turbine Electrical/Control Center	2
Air Compressor Foundation and Connections	2
CT Static Starter Skid Foundation and Connections	2
Switchgear Equipment Building Structure, Foundation and Connections	2
CT Generator Step-up Transformer Foundation and Connections	2
ST Generator Step-up Transformer Foundation and Connections	1
Air Receiver Foundation and Connections	1
Air Dryer Foundation and Connections	1
Closed Cycle Cooling Water Heat Exchanger Foundation and Connections	2
Closed Cycle Cooling Water Pump Foundation and Connections	2
Potable Water Systems	1 Lot
Drainage Systems (including sanitary drain and waste)	1 Lot
High Pressure ***(>100 psig)*** and Large Diameter ***(>4" Diameter)*** Piping	1 Lot
HVAC and Refrigeration Systems	1 Lot
Temperature Control and Ventilation Systems (including water and sewer connections)	1 Lot
Building Energy Conservation Systems	1 Lot
Substation/Switchyard, Buses and Towers ***(Excluding Buck Blvd. Substation)***	1 Lot
Electrical Duct Banks	1 Lot
Inlet Air Chilling System	***1 Lot***
Water Treatment Systems	***1 Lot***

CB II Comment:

CB II accepts the proposed GEN-2 as modified.

GEN-3 The project owner shall make payments to the CBO for design review, plan check and construction inspection based upon a reasonable fee schedule to be negotiated between the project owner and the CBO based on a CPM approved agreement. These fees may be consistent with the fees listed in the 2001 CBC [Chapter 1, Section 107 and Table 1-A, Building Permit Fees; Appendix Chapter 33, Section 3310 and Table A-33-A, Grading Plan Review Fees; and Table A-33-B, Grading Permit Fees], adjusted for inflation and other appropriate adjustments; may be based on the value of the facilities reviewed; may be based on hourly rates; or may be as otherwise agreed by the project owner and the CBO. Payments to the CBO shall in no way affect or diminish the independence of the CBO.

Verification: The project owner shall make the required payments to the CBO in accordance with the agreement between the project owner and the CBO. The project owner shall send a copy of the CBO's receipt of payment to the CPM in the next Monthly Compliance Report indicating that the applicable fees have been paid. The project owner shall provide a copy of the payment agreement to the CPM for review and approval prior to execution.

CB II Comment:

CB II accepts the GEN-3 as written.

GEN-4 Prior to the start of rough grading, the project owner shall assign a California registered architect, structural engineer or civil engineer, as a resident engineer (RE), to be in general responsible charge of the project [Building Standards Administrative Code (Cal. Code Regs., tit. 24, § 4-209, Designation of Responsibilities)]. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the **Transmission System Engineering** section of this document.

The RE may delegate responsibility for portions of the project to other registered engineers. Registered mechanical and electrical engineers may be delegated responsibility for mechanical and electrical portions of the project, respectively. A project may be divided into parts, provided each part is clearly defined as a distinct unit. Separate assignment of general responsible charge may be made for each designated part.

The RE shall:

1. Monitor construction progress of work requiring CBO design review and inspection to ensure compliance with LORS;
2. Ensure that construction of all the facilities subject to CBO design review and inspection conforms in every material respect to the applicable LORS, these Conditions of Certification, approved plans, and specifications;
3. Prepare documents to initiate changes in the approved drawings and specifications when directed by the project owner or as required by conditions on the project;
4. Be responsible for providing the project inspectors and testing agency(ies) with complete and up-to-date set(s) of stamped drawings, plans, specifications and any other required documents;
5. Be responsible for the timely submittal of construction progress reports to the CBO from the project inspectors, the contractor, and other

engineers who have been delegated responsibility for portions of the project; and

6. Be responsible for notifying the CBO of corrective action or the disposition of items noted on laboratory reports or other tests as not conforming to the approved plans and specifications.

The RE shall have the authority to halt construction and to require changes or remedial work, if the work does not conform to applicable requirements.

If the RE or the delegated engineers are reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer.

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, the resume and registration number of the RE and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five days of the approval.

If the RE or the delegated engineer(s) are subsequently reassigned or replaced, the project owner has five days in which to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.

CB II Comment:

See attached CB II comments.

GEN-5 Prior to the start of rough grading, the project owner shall assign at least one of each of the following California registered engineers to the project: A) a civil engineer; B) a soils engineer, or a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering; and C) an engineering geologist. Prior to the start of construction, the project owner shall assign at least one of each of the following California registered engineers to the project: D) a design engineer, who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; E) a mechanical engineer; and F) an electrical engineer. [California Business and Professions Code section 6704 et seq., and sections 6730, 6731 and 6736 requires state registration to practice as a civil engineer or structural engineer in California.] All

transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the **Transmission System Engineering** section of this document.

The tasks performed by the civil, mechanical, electrical or design engineers may be divided between two or more engineers, as long as each engineer is responsible for a particular segment of the project (e.g., proposed earthwork, civil structures, power plant structures, equipment support). No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical engineer.

The project owner shall submit to the CBO for review and approval, the names, qualifications and registration numbers of all responsible engineers assigned to the project [2001 CBC, Section 104.2, Powers and Duties of Building Official].

If any one of the designated responsible engineers is subsequently reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned responsible engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer.

A. The civil engineer shall:

1. Review the Foundation Investigations Report, Geotechnical Report or Soils Report prepared by the soils engineer, the geotechnical engineer, or by a civil engineer experienced and knowledgeable in the practice of soils engineering;
2. Design, or be responsible for design, stamp, and sign all plans, calculations and specifications for proposed site work, civil works and related facilities requiring design review and inspection by the CBO. At a minimum, these include: grading, site preparation, excavation, compaction, construction of secondary containment, foundations, erosion and sedimentation control structures, drainage facilities, underground utilities, culverts, site access roads and sanitary sewer systems; and
3. Provide consultation to the RE during the construction phase of the project and <u>when necessary,</u> recommend changes in the design of the civil works facilities and changes in the construction procedures.

B. The soils engineer, geotechnical engineer, or civil engineer experienced and knowledgeable in the practice of soils engineering, shall:

1. Review all the engineering geology reports;

2. Prepare the Foundation Investigations Report, Geotechnical Report or Soils Report containing field exploration reports, laboratory tests and engineering analysis detailing the nature and extent of the soils that may be susceptible to liquefaction, rapid settlement or collapse when saturated under load [2001 CBC, Appendix Chapter 33, Section 3309.5, Soils Engineering Report; Section 3309.6, Engineering Geology Report; and Chapter 18, Section 1804, Foundation Investigations];
3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2001 CBC, Appendix Chapter 33; Section 3317, Grading Inspections (depending on the site conditions, this may be the responsibility of either the soils engineer or engineering geologist or both); and
4. Recommend field changes to the civil engineer and RE.

This engineer shall be authorized to halt earthwork and to require changes if site conditions are unsafe or do not conform with predicted conditions used as a basis for design of earthwork or foundations [2001 CBC, section 104.2.4, Stop orders].

C. The engineering geologist shall:
   1. Review all the engineering geology reports and prepare final soils grading report; and
   2. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2001 CBC, Appendix Chapter 33; Section 3317, Grading Inspections (depending on the site conditions, this may be the responsibility of either the soils engineer or engineering geologist or both).

D. The design engineer shall:
   1. Be directly responsible for the design of the proposed structures and equipment supports;
   2. Provide consultation to the RE during design and construction of the project;
   3. Monitor construction progress to ensure compliance with engineering LORS;
   4. Evaluate and recommend necessary changes in design; and
   5. Prepare and sign all major building plans, specifications and calculations.

E. The mechanical engineer shall be responsible for, and sign and stamp a statement with,each mechanical submittal to the CBO, stating that

the proposed final design plans, specifications, and calculations conform with all of the mechanical engineering design requirements set forth in the Energy Commission's Decision.

F. The electrical engineer shall:

1. Be responsible for the electrical design of the project; and
2. Sign and stamp electrical design drawings, plans, specifications, and calculations.

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible civil engineer, soils (geotechnical) engineer and engineering geologist assigned to the project.

At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of construction, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible design engineer, mechanical engineer and electrical engineer assigned to the project.

The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.

If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.

CB II Comment:

See attached CB II comments.

GEN-6 Prior to the start of an activity requiring special inspection, the project owner shall assign to the project, qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2001 CBC, Chapter 17 [Section 1701, Special Inspections; Section 1701.5, Type of Work (requiring special inspection)]; and Section 106.3.5, Inspection and observation program. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the **Transmission System Engineering** section of this document.

The special inspector shall:

1. Be a qualified person who shall demonstrate competence, to the satisfaction of the CBO, for inspection of the particular type of construction requiring special or continuous inspection;

2. Observe the work assigned for conformance with the approved design drawings and specifications;
3. Furnish inspection reports to the CBO and RE. All discrepancies shall be brought to the immediate attention of the RE for correction, then, if uncorrected, to the CBO and the CPM for corrective action [2001 CBC, Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector]; and
4. Submit a final signed report to the RE, CBO, and CPM, stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable provisions of the applicable edition of the CBC.

A certified weld inspector, certified by the American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) as applicable, shall inspect welding performed on-site requiring special inspection (including structural, piping, tanks and pressure vessels).

Verification: At least 15 days (or project owner and CBO approved alternative timeframe) prior to the start of an activity requiring special inspection, the project owner shall submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s), or other certified special inspector(s) assigned to the project to perform one or more of the duties set forth above. The project owner shall also submit to the CPM a copy of the CBO's approval of the qualifications of all special inspectors in the next Monthly Compliance Report.

If the special inspector is subsequently reassigned or replaced, the project owner has five days in which to submit the name and qualifications of the newly assigned special inspector to the CBO for approval. The project owner shall notify the CPM of the CBO's approval of the newly assigned inspector within five days of the approval.

CB II Comment:

See attached CB II comments.

GEN-7 If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend the corrective action required [2001 CBC, Chapter 1, Section 108.4, Approval Required; Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector; Appendix Chapter 33, Section 3317.7, Notification of Noncompliance]. The discrepancy documentation shall be submitted to the CBO for review and approval. The discrepancy documentation shall

reference this Condition of Certification and, if appropriate, the applicable sections of the CBC and/or other LORS.

Verification: The project owner shall transmit a copy of the CBO's approval of any corrective action taken to resolve a discrepancy to the CPM in the next Monthly Compliance Report. If any corrective action is disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval and the revised corrective action to obtain the CBO's approval.

CB II Comment:

See attached CB II comments.

GEN-8 The project owner shall obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. The project owner shall request the CBO to inspect the completed structure and review the submitted documents. The project owner shall notify the CPM after obtaining the CBO's final approval. The project owner shall retain one set of approved engineering plans, specifications and calculations (including all approved changes) at the project site or at another accessible location during the operating life of the project [1998 CBC, Section 106.4.2, Retention of Plans].

Verification: Within 15 days of the completion of any work, the project owner shall submit to the CBO, with a copy to the CPM, in the next Monthly Compliance Report, (a) a written notice that the completed work is ready for final inspection, and (b) a signed statement that the work conforms to the final approved plans. After storing final approved engineering plans, specifications and calculations as described above, the project owner shall submit to the CPM a letter stating that the above documents have been stored and indicate the storage location of such documents.

CB II Comment:

See attached CB II comments.

CIVIL-1 The project owner shall submit to the CBO for review and approval the following:

1. Design of the proposed drainage structures and the grading plan;
2. An erosion and sedimentation control plan;
3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and

4. Soils Report, Geotechnical Report or Foundation Investigations Report required by the 2001 CBC [Appendix Chapter 33, Section 3309.5, Soils Engineering Report; Section 3309.6, Engineering Geology Report; and Chapter 18, Section 1804, Foundation Investigations].

Verification: At least 15 days (or project owner and CBO approved alternative timeframe) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval, ***except for the precise grading and drainage plans which shall be submitted on a CBO approved alternate timeframe***. In the next Monthly Compliance Report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.

CB II Comment:

CB II accepts the proposed condition as highlighted. CB II has recommended additional text to highlight the point that the initial grading and drainage plan will not contain all final details related to the grading and drainage facilities for the Project. Minor details will evolve during the course of the design and construction of the facility.

CIVIL-2 The resident engineer shall, if appropriate, stop all earthwork and construction in the affected areas when the responsible soils engineer, geotechnical engineer, or the civil engineer experienced and knowledgeable in the practice of soils engineering identifies unforeseen adverse soil or geologic conditions. The project owner shall submit modified plans, specifications and calculations to the CBO based on these new conditions. The project owner shall obtain approval from the CBO before resuming earthwork and construction in the affected area [2001 CBC, Section 104.2.4, Stop orders].

Verification: The project owner shall notify the CPM within ***five days***~~24 hours~~, when earthwork and construction is stopped as a result of unforeseen adverse geologic/soil conditions. Within ***five days***~~24 hours~~ of the CBO's approval to resume earthwork and construction in the affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.

CB II Comment:

CB II accepts the proposed condition as modified

CIVIL-3 The project owner shall perform inspections in accordance with the 2001 CBC, Chapter 1, Section 108, Inspections; Chapter 17, Section 1701.6, Continuous and Periodic Special Inspection; and Appendix Chapter 33, Section 3317, Grading Inspection. All plant site-grading operations, for which a grading permit is required, shall be subject to inspection by the CBO.

If, in the course of inspection, it is discovered that the work is not being performed in accordance with the approved plans, the discrepancies shall be reported immediately to the resident engineer, the CBO and the CPM [2001 CBC, Appendix Chapter 33, Section 3317.7, Notification of Noncompliance]. The project owner shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action.

Verification: Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a Non-Conformance Report (NCR), and the proposed corrective action for review and approval. Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM. A list of NCRs, for the reporting month, shall also be included in the following Monthly Compliance Report.

CB II Comment:

CB II accepts this condition as proposed.

CIVIL-4 After completion of finished grading and erosion and sedimentation control and drainage work, the project owner shall obtain the CBO's approval of the final grading plans (including final changes) for the erosion and sedimentation control work. The civil engineer shall state that the work within his/her area of responsibility was done in accordance with the final approved plans [~~1998~~ ***2001*** CBC, Section 3318, Completion of Work].

Verification: Within 30 days (or project owner and CBO approved alternative timeframe) of the completion of the erosion and sediment control mitigation and drainage work, the project owner shall submit to the CBO, for review and approval, the final grading plans (including final changes) and the responsible civil engineer's signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved combined grading plans, and that the facilities are adequate for their intended purposes, with a copy of the transmittal letter to the CPM. The project owner shall submit a copy of the CBO's approval to the CPM in the next Monthly Compliance Report.

CB II Comment:

CB II accepts this condition as proposed with the verification of the correct edition of the CBC.

FACILITY DESIGN

STRUC-1 Prior to the start of any increment of construction of any major structure or component ***(or project owner and CBO approved alternative timeframe)*** listed in ***Facility Design Table 1*** of Condition of Certification **GEN-2**, above, the project owner shall submit to the CBO for design review and approval the proposed lateral force procedures for project structures and the applicable designs, plans and drawings for project structures. Proposed lateral force procedures, designs, plans and drawings shall be those for the following items ***as mutually agreed on by the owner and CBO*** (from **Table 1**, above):

1. Major project structures;
2. Major foundations, equipment supports and anchorage;
3. Large field fabricated tanks;
4. Turbine/generator pedestal; and
5. Switchyard structures ***(exclusive of the Buck Blvd. WAPA switchyard).***

Construction of any structure or component shall not commence until the CBO has approved the lateral force procedures to be employed in designing that structure or component.

The project owner shall:

1. Obtain approval from the CBO of lateral force procedures proposed for project structures;
2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (i.e., highest loads, or lowest allowable stresses shall govern). All plans, calculations and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations and specifications [2001 CBC, Section 108.4, Approval Required];
3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations and other required documents of the designated major structures prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation [2001 CBC, Section 106.4.2, Retention of plans; and Section 106.3.2, Submittal documents];
4. Ensure that the final plans, calculations and specifications clearly reflect the inclusion of approved criteria, assumptions and methods used to develop the design. The final designs, plans, calculations and specifications shall be signed and stamped by the responsible design engineer [2001 CBC, Section 106.3.4, Architect or Engineer of Record]; and

5. Submit to the CBO the responsible design engineer's signed statement that the final design plans conform to the applicable LORS [2001 CBC, Section 106.3.4, Architect or Engineer of Record].

Verification: At least 60 days (or project owner and CBO approved alternative timeframe) prior to the start of any increment of construction of any structure or component listed in **Facility Design Table 1** of Condition of Certification **GEN-2** above, the project owner shall submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM.

The project owner shall submit to the CPM, in the next Monthly Compliance Report a copy of a statement from the CBO that the proposed structural plans, specifications and calculations have been approved and are in compliance with the requirements set forth in the applicable engineering LORS.

CB II Comment:

CB II accepts the proposed condition as modified.

STRUC-2 The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval:

1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters);
2. Concrete pour sign-off sheets;
3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques);
4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and
5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2001 CBC, Chapter 17, Section 1701, Special Inspections; Section 1701.5, Type of Work (requiring special inspection); Section 1702, Structural Observation and Section 1703, Nondestructive Testing.

Verification: If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies and the proposed corrective action to the CBO, with a copy of the transmittal letter to the CPM [2001 CBC, Chapter 17, Section

1701.3, Duties and Responsibilities of the Special Inspector]. The NCR shall reference the Condition(s) of Certification and the applicable CBC chapter and section. Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.

The project owner shall transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action to obtain CBO's approval.

CB II Comment:

CB II accepts this condition as written.

STRUC-3 The project owner shall submit to the CBO design changes to the final plans required by the 2001 CBC, Chapter 1, Section 106.3.2, Submittal documents and Section 106.3.3, Information on plans and specifications, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing.

Verification: On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes, and shall submit the required number of sets of revised drawings and the required number of copies of the other above-mentioned documents to the CBO, with a copy of the transmittal letter to the CPM. The project owner shall notify the CPM, via the Monthly Compliance Report, when the CBO has approved the revised plans.

CB II Comment:

CB II accepts this condition as written.

STRUC-4 Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in Chapter 3, Table 3-E of the 2001 CBC shall, at a minimum, be designed to comply with the requirements of that Chapter.

Verification: At least 30 days (or project owner and CBO approved alternate timeframe) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials, the project owner shall submit to the CBO for design review and approval final design plans, specifications and calculations, including a copy of the signed and stamped engineer's certification.

The project owner shall send copies of the CBO approvals of plan checks to the CPM in the following Monthly Compliance Report. The project owner shall also transmit a copy of the CBO's inspection approvals to the CPM in the Monthly Compliance Report following completion of any inspection.

CB II Comment:

CB II accepts this condition as written.

MECH-1 The project owner shall submit, for CBO design review and approval, the proposed final design ***drawings***, specifications and calculations for each plant major piping and plumbing system listed in **Facility Design Table 1**, Condition of Certification **GEN-2**, above. ***Plant systems, p***hysical layout drawings and drawings***, specifications, and calculations*** not related to code compliance and life safety need not be submitted. The submittal shall also include the applicable QA/QC procedures. Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of said construction [2001 CBC, Section 106.3.2, Submittal Documents; Section 108.3, Inspection Requests; Section 108.4, Approval Required; 2001 California Plumbing Code, Section 103.5.4, Inspection Request; Section 301.1.1, Approval].

The responsible mechanical engineer shall stamp and sign all plans, drawings and calculations for the major piping and plumbing systems subject to the CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards [Section 106.3.4, Architect or Engineer of Record], which may include, but not be limited to:

- American National Standards Institute (ANSI) B31.1 (Power Piping Code);
- ANSI B31.2 (Fuel Gas Piping Code);
- ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code);
- ANSI B31.8 (Gas Transmission and Distribution Piping Code);
- Title 24, California Code of Regulations, Part 5 (California Plumbing Code);
- Title 24, California Code of Regulations, Part 6 (California Energy Code, for building energy conservation systems and temperature control and ventilation systems);
- Title 24, California Code of Regulations, Part 2 (California Building Code); and
- Specific City/County code.

The CBO may deputize inspectors to carry out the functions of the code enforcement agency [2001 CBC, Section 104.2.2, Deputies].

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of any increment of major piping or plumbing construction listed in **Facility Design Table 1**, Condition of Certification **GEN-2** above, the project owner shall submit to the CBO for design review and approval the final plans, specifications and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.

The project owner shall transmit to the CPM, in the Monthly Compliance Report following completion of any inspection, a copy of the transmittal letter conveying the CBO's inspection approvals.

CB II Comment:

CB II accepts this condition as modified.

MECH-2 For all pressure vessels installed in the plant, the project owner shall submit to the CBO and California Occupational Safety and Health Administration (Cal-OSHA), prior to operation, the code certification papers and other documents required by the applicable LORS. Upon completion of the installation of any pressure vessel, the project owner shall request the appropriate CBO and/or Cal-OSHA inspection. ~~of said installation~~ [2001 CBC, Section 108.3, Inspection Requests].

The project owner shall:

1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated and installed in accordance with the appropriate section of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or other applicable code. Vendor certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and

2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications and calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes.

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of on-site fabrication or installation of any pressure vessel, the project owner shall submit to the CBO for design review and approval, the above listed documents, including a copy of the signed and stamped engineer's certification, with a copy of the transmittal letter to the CPM.

The project owner shall transmit to the CPM, in the Monthly Compliance Report following completion of any inspection, a copy of the transmittal letter conveying the CBO's and/or Cal-OSHA inspection approvals.

CB II Comment:

CB II accepts this condition as written.

MECH-3 The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations and quality control procedures for any heating, ventilating, air conditioning (HVAC) or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets.

The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval. ~~of said construction~~. The final plans, specifications and calculations shall include approved criteria, assumptions and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with the applicable LORS [2001 CBC, Section 108.7, Other Inspections; Section 106.3.4, Architect or Engineer of Record].

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to the CPM.

CB II Comment:

CB II accepts this condition as written.

ELEC-1 Prior to the start of any increment of electrical construction for electrical equipment and systems 480 volts and higher, listed below, with the exception of underground duct work and any physical layout drawings and drawings not related to code compliance and life safety, the project owner shall submit, for CBO design review and approval, the proposed final design drawings, specifications and calculations [CBC 2001, Section 106.3.2, Submittal documents]. Upon approval, the above listed plans, together with design changes and design change notices, shall remain on the site or at another accessible location for the operating life of the project. The project owner shall request that the CBO inspect the

installation to ensure compliance with the requirements of applicable LORS [2001 CBC, Section 108.4, Approval Required, and Section 108.3, Inspection Requests]. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the **Transmission System Engineering** section of this document.

A. Final plant design plans to include:
   1. one-line diagrams for the 13.8 kV, 4.16 kV and 480 V systems; and
   2. system grounding drawings.

B. Final plant calculations to establish:
   1. short-circuit ratings of plant equipment;
   2. ampacity of feeder cables;
   3. voltage drop in feeder cables;
   4. system grounding requirements;
   5. coordination study calculations for fuses, circuit breakers and protective relay settings for the 13.8 kV, 4.16 kV and 480 V systems; ***and***

   ~~6.system grounding requirements; and~~

   ~~7.~~6. lighting energy calculations.

C. The following activities shall be reported to the CPM in the Monthly Compliance Report:
   1. Receipt or delay of major electrical equipment;
   2. Testing or energization of major electrical equipment; and
   3. A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to requirements ~~set forth in the Energy Commission Decision~~ ***in the applicable LORS***.

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for design review and approval the above listed documents. The project owner shall include in this submittal a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.

CB II Comment:

CB II accepts this condition as modified.

ATTACHMENT 1

TO

FACILITY DESIGN

COMMENTS

Caithness Blythe II (CB II) has reviewed the codes and standards referenced by the CEC in the General Conditions of the Blythe II Preliminary Staff Assessment. We have noted several differences between the Codes and Standards vs. the Staff's proposed Conditions of Certification. In prior meetings with Staff, Staff has indicated they "are not imposing any requirements which are not usually stated in the Codes and Standards" (Steve Baker, 2003 meeting with CB II). CB II asserts this is not the case as evidenced by the way the Conditions of Certification were administered on BEP and suggests further discussion in the PSA workshop. Following are CB II's comments.

General

Building official (CBO) review and approval of drawings, plans, specifications: The CBO is authorized by the California Building Code to review and approve documents that are submitted for work for which a building permit is required. The California Mechanical Code also authorizes review and approval of submittals by the building official.

The administrative portion of the code, Section 105 – Board of Appeals, contains a description of the process to decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the code. The board of appeals shall hold office at its pleasure. The board has no authority relative to interpretation of the administrative provisions of the code. The "dispute review board" CB II envisions would be outside of this process. The code's defined process does not appear to be set up to handle appeals in a manner that would support the construction process (board shall ... hold office at its pleasure.).

Condition Specific Comments

GEN –4

GEN - 4 defines the responsibilities of the Resident Engineer (RE) and states that the RE is in general responsible charge of the project. GEN –4 cites section 4-209 of the Building Standards Administrative Code as the basis for the RE's responsibilities. Chapter 4, Article 1, of the BSAC, which contains section 4-209, is titled *Essential Services Buildings*. The CEC is using as a basis for the RE responsibilities a section of the code that applies to essential services buildings (An essential services building as designed and constructed shall be capable of providing essential services to the public after a disaster.) CB II is not an essential services building as defined in section4-207.

Section 4-209 of Title 24 does not use the term "Resident Engineer" anywhere in its text. Section 4-209 describes the responsibilities of an architect or engineer (structural or civil) in general responsible charge of plans, specifications, and observation of construction.

The Building Standards Administrative Code, Title 24 of the California Code of Regulations, frequently cites Title 19 of the California Code, Health and Safety Code, as the Authority and Reference for Title 24 sections. For section 4-209 of Title 24, three sections of Title 19 are referenced. These sections of Title 19 also describe duties of the responsible charge that are associated with preparation of drawings and plans and observation of construction work.

The Title 24 sections noted in GEN – 4 and the Title 19 sections referenced by Title 24 do not specify that the RE has the authority to halt construction and require changes or remedial work. (The building official is, however, authorized in 104.2.4 of Title 24 to order work to be stopped.)

Gen -5 requires if the RE or delegated engineers are replaced, the CBO will review the qualifications and review and approve the replacements. CB II does not find support for this authority in the code. The Administrative Code, 106.3.4, Architect or engineer of record, describes the duties of the engineer of record, including, "engineer of record shall be responsible for reviewing and coordinating all submittal documents prepared by others, including deferred submittal items, for compatibility with the design of the building." It further states "The building official shall be notified in writing by the owner if the architect of record is changed or is unable to continue to perform duties." No mention is made of building official review and approval; the building official is required to be notified.

GEN - 5

GEN – 5 contains the requirements and duties for the various types of engineers assigned to the project. One of the engineers specified in GEN – 5 is the "design engineer". CB II does not find the term "design engineer" in the California Business and Professional Code or the Building Standards Administrative Code. The other engineering disciplines noted in GEN-5 are listed in the codes. The condition to submit the resumes of the responsible engineers for building official review and approval is not supported by the cited code (104.2, Powers and Duties of Building Official).

GEN – 6

GEN – 6 addresses the responsibilities of the special inspector. It includes the requirements that all discrepancies be brought to the immediate attention of the RE for correction, then, if uncorrected to the CBO and CPM for corrective action. This is not in accordance with section 1701.3 of the code. Code section 1701.3 requires all discrepancies be brought to the immediate attention of the contractor for correction, then, if uncorrected to the proper design authority and to the building official.

GEN – 7

Gen – 7 addresses inspection discrepancies; it references Sections 108.4 and 1701.3 and Appendix Chapter 33 of the building code. The condition states that

discrepancy documentation shall be submitted to the CBO for review and approval. Of the referenced code sections, only Appendix Chapter 33 mentions the building official. Appendix Chapter 33 only requires that the discrepancy be reported to the permittee and building official; it does not mention approval of corrective actions.

GEN – 8

Gen – 8 requires that the owner obtain the CBO's final approval of all completed work that has undergone CBO design review and approval and also has requirements for retention of records. Building official inspections are addressed on sections 108, Inspections, and 109, Certificate of Occupancy.

Section 108 states "All construction or work for which a permit is required shall be subject to inspection by the building official..." .

Section 109 states "After the building official inspects the building or structure and finds no violations of provisions of provisions of the code or other laws that are enforced by the code enforcement agency, the building official shall issue a certificate of occupancy...".
The code does not mention "CBO's final approval" or "work that has undergone CBO design review and approval". (Interestingly, the Essential Services section of the Health and Safety Code related to verifications, section 16020, requires "periodically ... the engineer in general responsible charge of the work of construction and the registered engineer shall make a report, duly verified by him or her through periodic review of construction, showing that the work during the period covered by the report has been performed and that the materials used and installed are in accordance with the approved drawings and specifications, setting forth any detailed statements of fact required by the enforcement agency." It does not require a signed statement that the work conforms to final approved plans.)

GEOLOGY, MINERAL RESOURCES, and PALEONTOLOGY

Applicant's Comments to BEP II Preliminary Staff Assessment Geology, Mineral Resources & Paleontology		
Number	**Comment**	**Page**
1	In the section headed "Landslides" reference is made to "the alternative water supply linear adjacent to the edge of the mesa near the pumping station". There is no "alternative water supply" being proposed for the BEP II project. Water supply will be provided by two (2) on-site groundwater wells. We are not sure what Staff is referring to.	5.2-5
2	In the section headed "Project Specific Impacts" reference is made to the alternative water supply lineal. Same as comment No. 1.	5.2-6
3	In the section headed "Project Specific Impacts" the text states "the proposed will include significant amounts of grading". While this is correct, we note a significant amount of grading (and compaction) have already occurred at the site as part of the BEP I. Specifically, as a result of CEC's approval of BEP License Amendment 1B, Blythe Energy placed over 200,000 cubic yards of excess fill resulting from the construction of the retention basin and evaporation ponds. Grading of the site will most likely disturb very little of the BEP II project not previously disturbed.	5.2-6

GEOLOGY, MINERAL RESOURCES, and PALEONTOLOGY

CB II General Comment re: Proposed Conditions of Certification

CB II urges the Staff to utilize the conditions previously approved by the Commission for the BEP. These conditions were implemented successfully with no significant problems or issues occurring during construction. We are not aware of any compelling reason for Staff to deviate from the previously approved Conditions. However, we do request that the Conditions be slightly modified to reflect the fact that the BEP II construction area has been previously disturbed with several feet of engineered fill. Since BEP II will be constructed on top of this engineered fill, the potential to encounter paleontological resources is extremely unlikely. We recommend that paleontological monitoring be conducted only in the areas where construction of BEP II would encounter undisturbed soils.

GEOLOGY, MINERAL RESOURCES, AND PALEONTOLOGY

PROPOSED CONDITIONS OF CERTIFICATION

General Conditions of Certification with respect to Geology are covered under **Conditions of Certification GEN-1**, **GEN-5**, and **CIVIL-1** in the **Facility Design** section. Paleontological **Conditions of Certification PAL-1 through PAL-7** are identified below.

PAL-1 The project owner shall provide the Compliance Project Manager (CPM) with the resume and qualifications of its Paleontological Resource Specialist (PRS) for review and approval. If the approved PRS is replaced prior to completion of project mitigation and submittal of the Paleontological Resources Report, the project owner shall obtain CPM approval of the replacement PRS. The project owner shall submit to the CPM to keep on file, resumes of the qualified Paleontological Resource Monitors (PRMs). If a PRM is replaced, the resumes of the replacement PRM shall also be provided to the CPM.

The PRS resume shall include the names and phone numbers of references. The resume shall also demonstrate to the satisfaction of the CPM, the appropriate education and experience to accomplish the required paleontological resource tasks.

As determined by the CPM, the PRS shall meet the minimum qualifications for a vertebrate paleontologist as described in the Society of Vertebrate Paleontology (SVP) guidelines of 1995. The experience of the PRS shall include the following:

GEOLOGY, MINERAL RESOURCES, and PALEONTOLOGY

1. Institutional affiliations, appropriate credentials and college degree; ability to recognize and collect fossils in the field;
2. local geological and biostratigraphic expertise;
3. proficiency in identifying vertebrate and invertebrate fossils and;
4. at least three years of paleontological resource mitigation and field experience in California, and at least one year of experience leading paleontological resource mitigation and field activities.

The project owner shall ensure that the PRS obtains qualified paleontological resource monitors to monitor as he or she deems necessary on the project. Paleontologic resource monitors (PRMs) shall have the equivalent of the following qualifications:

- BS or BA degree in geology or paleontology and one year experience monitoring in California; or
- AS or AA in geology, paleontology or biology and four years experience monitoring in California; or
- Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in California.

Verification: At least 60 days prior to the start of ground disturbance, the project owner shall submit a resume and statement of availability of its designated PRS for on-site work.

At least 20 days prior to ground disturbance, the PRS or project owner shall provide a letter with resumes naming anticipated monitors for the project and stating that the identified monitors meet the minimum qualifications for paleontological resource monitoring required by the condition. If additional monitors are obtained during the project, the PRS shall provide additional letters and resumes to the CPM. The letter shall be provided to the CPM no later than one week prior to the monitor beginning on-site duties.

Prior to the termination or release of a PRS, the project owner shall submit the resume of the proposed new PRS to the CPM for review and approval.

CB II Comment:
CB II has no comments on this proposed condition, however suggest the BEP condition be utilized.

PAL-2 The project owner shall provide to the PRS and the CPM, for approval, maps and drawings showing the footprint of the power plant, construction laydown areas, and all related facilities. Maps shall identify all areas of the project where ***previously undisturbed*** ground disturbance is anticipated. If the PRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the PRS and CPM. The site grading plan and the plan and profile drawings for the utility lines would be

acceptable for this purpose. The plan drawings shall show the location, depth, and extent of all ground disturbances and should be of such as scale to allow the PRS to determine and map fossil occurrences. If the footprint of the power plant or linear facility changes, the project owner shall provide maps and drawings reflecting these changes to the PRS and CPM.

If construction of the project will proceed in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the PRS and CPM. Prior to work commencing on affected phases, the project owner shall notify the PRS and CPM of any construction phase scheduling changes.

At a minimum, the project owner shall ensure that the PRS or PRM consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked during the next week, until ground disturbance ***in previously undisturbed areas*** is completed.

Verification: At least 30 days prior to the start of ground disturbance, the project owner shall provide the maps and drawings to the PRS and CPM.

If there are changes to the footprint of the project, revised maps and drawings shall be provided to the PRS and CPM at least 15 days prior to the start of ground disturbance.

If there are changes to the scheduling of the construction phases, the project owner shall submit a letter to the CPM within 5 days of identifying the changes.

CB II Comments:
As indicated previously, only areas where previously undisturbed native soils should require monitoring during construction. Additionally, full time monitoring should not be required during excavations since all indications from the excavation work performed during BEP construction are that the area does not have the potential for paleontological resources.

PAL-3 The project owner shall ensure that the PRS prepares, and the project owner submits to the CPM for review and approval, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) to identify general and specific measures to minimize potential impacts to significant paleontological resources. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance ***in previously undisturbed areas***. The PRMMP shall function as the formal guide for monitoring, collecting and sampling activities and may be modified with CPM approval. This document shall be used as a basis for discussion in the event that on-site decisions or changes are proposed. Copies of the PRMMP shall reside with the PRS, each monitor, the project owner's on-site manager, and the CPM.

GEOLOGY, MINERAL RESOURCES, and PALEONTOLOGY

The PRMMP shall be developed in accordance with the guidelines of the Society of Vertebrate Paleontology (SVP, 1995) and shall include, but not be limited to, the following:

1. Assurance that the performance and sequence of project-related tasks, such as any literature searches, pre-construction surveys, worker environmental training, fieldwork, flagging or staking; construction monitoring; mapping and data recovery; fossil preparation and collection; identification and inventory; preparation of final reports; and transmittal of materials for curation will be performed according to the PRMMP procedures;
2. Identification of the person(s) expected to assist with each of the tasks identified within the PRMMP and the Conditions of Certification;
3. A thorough discussion of the anticipated geologic units expected to be encountered, the location and depth of the units relative to the project when known, and the known sensitivity of those units based on the occurrence of fossils either in that unit or in correlative units;
4. A discussion of the locations of where the monitoring of project construction activities ***in previously undisturbed areas*** is deemed necessary, and a proposed schedule for the monitoring and sampling;
5. A discussion of the procedures to be followed in the event of a significant fossil discovery, halting construction, resuming construction, and how notifications will be performed;
6. A discussion of equipment and supplies necessary for collection of fossil materials and any specialized equipment needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits;
7. Procedures for inventory, preparation, and delivery for curation into a retrievable storage collection in a public repository or museum, which meets the Society of Vertebrate Paleontology standards and requirements for the curation of paleontological resources;
8. Identification of the institution that has agreed to receive any data and fossil materials collected, requirements or specifications for materials delivered for curation and how they will be met, and the name and phone number of the contact person at the institution; and
9. A copy of the paleontological Conditions of Certification.

Verification: At least (30) days prior to ground disturbance, the project owner shall provide two copies of the PRMMP to the CPM. The PRMMP shall include an affidavit of authorship by the PRS, and acceptance of the PRMMP by the project owner evidenced by a signature.

GEOLOGY, MINERAL RESOURCES, and PALEONTOLOGY

CB II Comment:

The Condition is acceptable as modified however, we suggest that Staff use the BEP condition of certification.

PAL-4 Prior to ground disturbance and for the duration of construction, the project owner and the PRS shall prepare and ***the project owner shall*** conduct weekly CPM-approved training for all recently employed project managers, construction supervisors and workers who are involved with or operate ground disturbing equipment or tools and who have not previously had the training. Workers shall not excavate in sensitive units prior to receiving CPM-approved worker training. Worker training shall consist of an initial in-person PRS training during the project kick-off for ***the site management staff*** ~~those mentioned above~~. Following initial training, a CPM-approved video or in-person training may be used for new employees. The training program may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or any other areas of interest or concern.

The Worker Environmental Awareness Program (WEAP) shall address the potential to encounter paleontological resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources.

The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Good quality photographs or physical examples of vertebrate fossils shall be provided for project sites containing units of high sensitivity;
3. Information that the PRS or PRM has the authority to halt or redirect construction in the event of a discovery or unanticipated impact to a paleontological resource;
4. Instruction that employees are to halt or redirect work in the vicinity of a find and to contact their supervisor and the PRS or PRM;
5. An informational brochure that identifies reporting procedures in the event of a discovery;
6. A Certification of Completion of WEAP form signed by each worker indicating that they have received the training; and
7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

Verification: At least 30 days prior to ground disturbance, the project owner shall submit two copies of the proposed WEAP including the brochure with the set of reporting procedures the workers are to follow.

GEOLOGY, MINERAL RESOURCES, and PALEONTOLOGY

At least 30 days prior to ground disturbance, the project owner shall submit the script and final video to the CPM for approval if the project owner is planning on using a video for interim training.

If an alternate paleontological trainer is requested by the project owner, the resume and qualifications of the trainer shall be submitted to the CPM for review and approval prior to installation of the alternate trainer. Alternate trainers shall not conduct training prior to CPM authorization.

In the Monthly Compliance Report (MCR) the project owner shall provide copies of the WEAP Certification of Completion forms with the names of those trained and the trainer or type of training offered that month. The MCR shall also include a running total of all persons who have completed the training to date.

CB II Comments:
BEP prepared a video tape and utilized on site professional staff to provide Paleontological training to construction workers. The on site staff received training initially from the PRS. Given the "disturbed" status of the BEP 2 site and the low probability of any paleontological resources existing on the site, CB II believes the original BEP condition satisfies the CEC requirements. We see no need for a full time PRS on site nor the need for the PRS to provide the ongoing training. This was not necessary for the construction of BEP.

PAL-5 The project owner shall ensure that the PRS and PRM(s) monitor consistently with the PRMMP all construction-related grading, excavation, trenching, and augering in ***previously undisturbed*** areas where potentially fossil-bearing materials have been identified. In the event that the PRS determines full time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, the project owner shall notify and seek the concurrence of the CPM.

The project owner shall ensure that the PRS and PRM(s) have the authority to halt or redirect construction if paleontological resources are encountered. The project owner shall ensure that there is no interference with monitoring activities unless directed by the PRS. Monitoring activities shall be conducted as follows:

1. Any change of monitoring different from the accepted program presented in the PRMMP shall be proposed in a letter or email from the PRS and the project owner to the CPM prior to the change in monitoring. The letter or email shall include the justification for the change in monitoring and be submitted to the CPM for review and approval.

2. The project owner shall ensure that the PRM(s) keeps a daily log of monitoring of paleontological resource activities ***at times when the***

PRS is on site. The PRS may informally discuss paleontological resource monitoring and mitigation activities with the CPM at any time.

3. The project owner shall ensure that the PRS immediately notifies the CPM of any incidents of non-compliance with any paleontological resources Conditions of Certification. The PRS shall recommend corrective action to resolve the issues or achieve compliance with the Conditions of Certification.

4. For any significant paleontological resources encountered, either the project owner or the PRS shall notify the CPM immediately (no later than the following morning after the find, or Monday morning in the case of a weekend) of any halt of construction activities.

The project owner shall ensure that the PRS prepares a summary of the monitoring and other paleontological activities that will be placed in the Monthly Compliance Reports (MCR). The summary will include the name(s) of PRS or PRM(s) active during the month, general descriptions of training and monitored construction activities and general locations of excavations, grading, etc. A section of the report shall include the geologic units or subunits encountered; descriptions of sampling within each unit; and a list of identified fossils. A final section of the report shall address any issues or concerns about the project relating to paleontologic monitoring including any incidents of non-compliance and any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.

Verification: The project owner shall ensure that the PRS submits the summary of monitoring and paleontological activities in the MCR. When feasible, the CPM shall be notified 10 days in advance of any proposed changes in monitoring different from the plan identified in the PRMMP. If there is any unforeseen change in monitoring, the notice shall be given as soon as possible prior to implementation of the change.

CB II Comment:
CB II does not see the need for a new more rigorous conditions and suggest BEP condition PAL-4 be used. We have provided comments on the Staff's proposed condition however, as noted above.

PAL-6 The project owner, through the designated PRS, shall ensure that all components of the PRMMP are adequately performed including collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontological

resource materials encountered and collected during the project construction.

Verification: The project owner shall maintain in their compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. The project owner shall maintain these files for a period of three years after completion and approval of the CPM-approved Paleontological Resource Report (See **PAL-7**). A signed contract or agreement with the PRS shall be provided to the CPM upon request. The project owner shall be responsible to pay any curation fees charged by the museum for fossils collected and curated as a result of paleontological mitigation. A copy of the letter of transmittal submitting the fossils to the curating institution shall be provided to the CPM.

CB II Comment:
No comments, however CB II suggests the original BEP condition of certification be utilized.

PAL-7 The project owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of the ~~ground-disturbing activities. The PRR shall include an~~ analysis of the collected fossil materials and related information and submitted to the CPM for review and approval.

The report shall include, but is not limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; determinations of sensitivity and significance; and a statement by the PRS that project impacts to paleontological resources have been mitigated.

Verification: Within (90) days after completion of ground disturbing activities, including landscaping, the project owner shall submit the Paleontological Resources Report under confidential cover to the CPM.

CB II Comment:
Comments as noted. CB II suggests the original BEP condition of certification be utilized. There is no need to write a report at the completion of the project unless paleontological resources are found during construction.

Efficiency + Reliability

Applicant's Comments to BEP II Preliminary Staff Assessment Efficiency + Reliability		
Number	**Comment**	**Page**
	Efficiency	
1	The section headed "Inlet Air Cooling" states that "The two commonly used techniques are the evaporative cooler or fogger, and the chiller...". This is substantially correct. However we would like to point out that while evaporative cooling and fogging both reduce the temperature of the turbine inlet air adiabatically through evaporation, the means in which this is accomplished is different for the two methods. BEP II has proposed an evaporative cooler as a potential means of inlet air cooling.	5.3-5
	Reliability	
1	The section headed "Water Supply Reliability" states that "BEP II will obtain water from an additional well constructed on-site which will supply...". We would like to clarify that BEP II proposes to construct two groundwater wells as described in the DR responses	5.4-4

Transmission Systems Engineering

Applicant's Comments to BEP II Preliminary Staff Assessment Transmission Systems Engineering		
Number	**Comment**	**Page**
1	See below	

At the Commission hearing in Blythe, CA on January 22, 2004, the Commission staff presented their response to a white paper written by CB II on the status of Transmission System Engineering. After hearing additional testimony from CB II, the Commission directed staff and CB II to prepare a condition such as the following;

Condition TSE No.__ : The Project Owner shall not commence construction until a the Desert Southwest Transmission Project (or an equivalent transmission upgrade as determined by the CPM) has received all necessary permits. The Project Owner shall not deliver to the grid more than ____ megawatts combined from the Blythe I and Blythe II projects until the Desert Southwest Transmission Project (or an equivalent transmission upgrade as determined by the CPM) has been constructed and is in operation.

Verification: Not later than 30 days prior to commencement of construction, the Project Owner shall provide to the CPM a statement from the owner(s) of the Desert Southwest Transmission Project (or an equivalent transmission upgrade as determined by the CPM) that all necessary permits have been issued. Not later than 30 days prior to delivery to the grid from the Blythe I and Blythe II projects of greater than _____ megawatts, the Project Owner shall submit to the CPM a statement from the owner(s) of the Desert Southwest Transmission Project (or an equivalent transmission upgrade as determined by the CPM) that the project is operational.

With this condition, staff was directed to move forward with the FSA analysis pending receipt of the following information from CB II.

1. Stability and Short Circuit Studies:

Status - CB II has completed stability and short circuit studies for the Project in coordination with the BART study stakeholders. A meeting was held on April 8, 2004 to review the Draft Study Results with the CEC and other stakeholders including the California ISO. The studies were completed on April 15, 2004 by GE Energy and copies were distributed directly to the CEC Transmission staff.

2. Plan View of Buck Blvd. Substation:

Status - A plan view of the build out of Buck Blvd. Substation showing the 500 kV facilities was provided to the CEC as part of the Western Area Power Administration Interconnection Application Request filing. In addition, this description was added to the revised Project Description of which 75 copies have been provided to the CEC.

3. Plan view of the Integration Switchyard:

Status - A plan view of the Integration Switchyard was provided to the CEC as part of the Western Area Power Administration Interconnection Application Request filing. In addition, this description was added to the revised Project Description of which 75 copies have been provided to the CEC.

4. Verification of mitigation measures for criteria violations per BART Executive Summary:

Status - The attached memorandum summarizes the results of the meeting held on April 8, 2004 in Ontario to obtain consensus on the verification of mitigation measures for criteria violations per BART studies.

5. Devers Import Nomogram:

Status - There is an existing California ISO approved nomogram in place that can be used for the BEP II generation referenced as follows;

East of River/Southern California Import Nomogram T-103 Version 6.1 dated February 6, 2004.

MEMORANDUM

TO: BART Participants

DATE: April 8, 2004

FROM: **Mark L. Etherton, P.E.**

RE: BART Consensus on Mitigation for Critical Contingencies for BEP II

The purpose of this letter is to draw from the significant conclusions developed for the Blythe Area Regional Transmission Study ("BART") that was completed and submitted to the California Energy Commission ("CEC") to obtain licensing of the Blythe Energy Project, II ("BEPII"), and to summarize the consensus reached by BART Work Group regarding the mitigation of the critical contingencies.

The BART Study was conducted in response to a CEC requirement to seek input from the regional transmission owners and operators to develop a common base case that would allow assessment of the regional impacts of the transmission system under various interconnection options of BEPII. The BART study was not intended to fulfill each transmission owners OATT requirements for a system impact study. The BART study was created to assist the CEC to determine what, if any, new transmission facilities would be required for the BEPII Project to conform to environmental regulations under the jurisdiction of the CEC. Additional power flow work, transient stability and short circuit studies were to be performed as part of final system impact studies by each of BART Participants pursuant to their individual OATT Processes.

The primary assumption for the current CEC BEPII application from the BART Study was that a 500kV line and a 500/161kV transformer (Desert Southwest Transmission Project or "DSTP") would be required prior to interconnection of the BEPII facility to the Buck 500kV substation. The primary conclusions from the BART Study with these assumptions were:

1. For the loss of the 500kV line from Buck to Devers, the mitigation requirement will be to prevent no more than 520MW total from BEP1 and BEP2 from being delivered into the existing Blythe 161kV area system. BART assumed that all of BEP2 would be tripped for the loss of the 500kV line to Devers.
2. For the loss of the Devers – Valley 500kV line, a "Devers Import Nomogram" should be developed to mitigate the overloads on the Devers 500/230kV transformer and the Devers – San Bernadino 230kV #1. Curtailments would be based on a maximum import limit (BART concluded 2200MW) and the criteria established by SCE and the CAISO.
3. With the DSTP and the interconnection to the Buck 161kV system, the existing Blythe area 161kV system is relieved of many of the existing overloads under N-0, N-1 and N-2 conditions.

The following represents the consensus that was reached at the BART Work Group meeting on April 2, 2004 regarding the mitigation of critical contingencies for the BART analysis.

The overlying assumption for this discussion was that the Buck – Devers 500kV line and the Buck 500/161kV transformer would be in-service ***prior*** to the BEP II generation commercial operation date. Both of these projects are expected to be completed in 2006. Furthermore, the BEP II owners have expressed their willingness to accept a condition of certification from the CEC ensuring that this is the case and have drafted a proposed condition to that effect and submitted it to the CEC Staff.

With the interconnection of BEP II at the Buck 500kV substation, the most critical contingency for the loading at the Buck/Blythe area system is the single contingency outage of the Buck to Devers 500kV line. The analysis completed to date shows both thermal overloads and transient stability issues for both BEP II and BEP I (1040MW total) connected only to the Western Blythe area 161kV system. Mitigation for this condition will be accomplished by an immediate reduction of BEP II generation output via a Remedial Action Scheme that will be developed to trip the appropriate level of generation at the BEPII facility to prevent the overloads to the Blythe area 161kV system.

The next most critical contingency for the interconnection of BEP II at the Buck 500kV substation is the single contingency outage of the Devers to Valley 500kV line. The BART analysis noted that the loading on the existing 500/230kV transformer at Devers might load to 125-135% of its emergency rating for this critical contingency. The CAISO stated that this contingency had been noted in current operating studies and the CAISO has developed an Operating Procedure to limit the overloads to the Devers 500/230kV transformer (reference CAISO T-103, V6.1, Section 5, attached). The CAISO also noted that in mid-2006, the second Devers 500/230kV transformer would be installed as part of the series capacitor upgrades on the Palo Verde-Devers 500kV line. Therefore, mitigation for this condition will not be required with the addition of the second Devers 500/230kV transformer in mid-2006. As a "back-up" in the event the second transformer is not installed at Devers, the CAISO Operating Procedure will be used to limit the flow into the Devers import as required. The CAISO also noted that the Operating Procedure would also be revised with the addition of the second Devers 500/230kV to limit the flow west of Devers 230kV system in the event of the Devers to Valley 500kV line is

The need the transient stability, short circuit, and post-transient analysis from the BART Study have been addressed and the final report has been completed (reference GE Final Report, dated 4/15/2004). While these studies will also have to be done for OATT compliance, we believe that with the completion of this latest analysis and the consensus on mitigation issues, the BART Study is sufficient to identify network upgrades and associated environmental impacts resulting from the interconnection of the Blythe II Project as needed for the Energy Commission's licensing review (i.e. upgrades required outside of existing Western/SCE/IID substation fences).

For the purposes of the CEC review for the Final Staff Assessment ("FSA") that is expected to be completed the end of April 2004, the above conclusions support that no new additional transmission facilities or upgrades that have not already been identified will be required outside the SCE, Western, and IID substation fences (just inside the fences such as breakers, switches, etc.).

As a BART Participant, we would like your written concurrence that the BART Study is sufficient to identify any network upgrades with possible environmental impacts that may result from interconnection of the Blythe II Project.

Thank you again for your participation with the BART study effort, and we look forward to working with each of you as the specific OATT required studies proceed over the next several months.

Alternatives

Applicant's Comments to BEP II Preliminary Staff Assessment Alternatives		
Number	**Comment** **Efficiency**	**Page**
1	Staff includes a brief review of the subjects covered elsewhere in the PSA. Instead of providing CB II comments in the Efficiency section to items that have been addressed elsewhere, we refer Staff to comments in the individual sections of the CB II PSA comments.	Various

General Conditions

Applicant's Comments to BEP II Preliminary Staff Assessment General Conditions		
Number	**Comment**	**Page**
1	No Comments.	

CB II accepts the proposed General Conditions as written. The BEP II proposed General Conditions are listed below.

COM-1, Unrestricted Access

The CPM, responsible Energy Commission staff, and delegate agencies or consultants, shall be guaranteed and granted unrestricted access to the power plant site, related facilities, project-related staff, and the files and records maintained on site, for the purpose of conducting audits, surveys, inspections, or general site visits. Although the CPM will normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time.

COM-2, Compliance Record

The project owner shall maintain project files onsite, or at an alternative site approved by the CPM, for the life of the project unless a lesser period of time is specified by the conditions of certification. The files shall contain copies of all "as-built" drawings, all documents submitted as verification for conditions, and all other project-related documents.

COM-3, Compliance Verification Submittals

Each condition of certification is followed by a means of verification. The verification describes the Energy Commission's procedure(s) to ensure post-certification compliance with adopted conditions.

Verification of compliance with the conditions of certification can be accomplished by:

1. reporting on the work done and providing the pertinent documentation in monthly and/or annual compliance reports filed by the project owner or authorized agent as required by the specific conditions of certification;
2. providing appropriate letters from delegate agencies verifying compliance;
3. Energy Commission staff audits of project records; and/or
4. Energy Commission staff inspections of mitigation or other evidence of mitigation.

A cover letter from the project owner or authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters.

General Conditions

The cover letter subject line shall identify the involved condition(s) of certification by condition number and include a brief description of the subject of the submittal. The project owner shall also identify those submittals not required by a condition of certification with a statement such as: "This submittal is for information only and is not required by a specific condition of certification." When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal.

The project owner is responsible for the delivery and content of all verification submittals to the CPM, whether such condition was satisfied by work performed by the project owner or an agent of the project owner.
All submittals shall be addressed as follows:

Steve Munro
Compliance Project Manager
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

If the project owner desires Energy Commission staff action by a specific date, they shall so state in their submittal and include a detailed explanation of the effects on the project if this date is not met.

COM-4, Pre-Construction Matrix and Tasks Prior to Start of Construction

Prior to commencing construction a compliance matrix addressing only those conditions that must be fulfilled before the start of construction shall be submitted by the project owner to the CPM. This matrix will be included with the project owner's first compliance submittal, and shall be submitted prior to the first pre-construction meeting, if one is held. It will be in the same format as the compliance matrix referenced below.

Construction shall not commence until the pre-construction matrix is submitted, all pre-construction conditions have been complied with, and the CPM has issued a letter to the project owner authorizing construction. Various lead times (e.g., 30, 60, 90 days) for submittal of compliance verification documents to the CPM for conditions of certification are established to allow sufficient staff time to review and comment and, if necessary, allow the project owner to revise the submittal in a timely manner. This will ensure that project construction may proceed according to schedule.

Failure to submit compliance documents within the specified lead-time may result in delays in authorization to commence various stages of project construction.

Verification lead times (e.g., 90, 60 and 30-days) associated with start of construction may require the project owner to file submittals during the certification process, particularly if construction is planned to commence shortly after certification.

General Conditions

It is important that the project owner understand that the submittal of compliance documents prior to project certification is at the owner's own risk. Any approval by Energy Commission staff is subject to change based upon the Final Decision.

EMPLOYEE ORIENTATION

Environmental awareness orientation and training will be developed for presentation to new employees during project construction as approved by Energy Commission staff and described in the conditions for Biological, Cultural, and Paleontological resources. At the time this training is presented, the project owner's representative shall present information about the role of the Energy Commission's delegate Chief Building Official (CBO) for the project. The role and responsibilities of the CBO to enforce relevant portions of the Energy Commission Decision, the CBSC, and other relevant building and health and safety requirements shall be briefly presented. As part of that presentation, new employees shall be advised of the CBO's authority to halt project construction activities, either partially or totally, or take other corrective measures, as appropriate, if the CBO deems that such action is required to ensure compliance with the Energy Commission Decision, the CBSC, and other relevant building and health and safety requirements. At least 30 days prior to construction, the project owner shall submit the proposed script containing this information for CPM review and approval.

Compliance Reporting

There are two different compliance reports that the project owner must submit to assist the CPM in tracking activities and monitoring compliance with the terms and conditions of the Commission Decision. During construction, the project owner or authorized agent will submit Monthly Compliance Reports. During operation, an Annual Compliance Report must be submitted. These reports, and the requirement for an accompanying compliance matrix, are described below. The majority of the conditions of certification require that compliance submittals be submitted to the CPM in the monthly or annual compliance reports.

COM-5, Compliance Matrix

A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report. The compliance matrix is intended to provide the CPM with the current status of all compliance conditions in a spreadsheet format. The compliance matrix must identify:

1. the technical area;
2. the condition number;
3. a brief description of the verification action or submittal required by the condition;
4. the date the submittal is required (e.g., 60 days prior to construction, after final inspection, etc.);
5. the expected or actual submittal date;

6. the date a submittal or action was approved by the Chief Building Official (CBO), CPM, or delegate agency, if applicable;
7. the compliance status of each condition (e.g., "not started," "in progress" or "completed" (include the date); and
8. the project's preconstruction and construction milestones, including dates and status (if milestones are required).

Satisfied conditions do not need to be included in the compliance matrix after they have been identified as satisfied in at least one monthly or annual compliance report.

COM-6, Monthly Compliance Report

The first Monthly Compliance Report is due one month following the Energy Commission business meeting date on which the project was approved, unless otherwise agreed to by the CPM. The first Monthly Compliance Report shall include an initial list of dates for each of the events identified on the Key Events List. The Key Events List form is found at the end of this section.

During pre-construction and construction of the project, the project owner or authorized agent shall submit an original and five copies (or amount specified by Compliance Project Manager) of the Monthly Compliance Report within 10 working days after the end of each reporting month. Monthly Compliance Reports shall be clearly identified for the month being reported. The reports shall contain, at a minimum:

1. a summary of the current project construction status, a revised/updated schedule if there are significant delays, and an explanation of any significant changes to the schedule;
2. documents required by specific conditions to be submitted along with the Monthly Compliance Report. Each of these items must be identified in the transmittal letter, and should be submitted as attachments to the Monthly Compliance Report;
3. an initial, and thereafter updated, compliance matrix which shows the status of all conditions of certification;
4. a list of conditions that have been satisfied during the reporting period, and a description or reference to the actions which satisfied the condition;
5. a list of any submittal deadlines that were missed accompanied by an explanation and an estimate of when the information will be provided;
6. a cumulative listing of any approved changes to conditions of certification;
7. a listing of any filings with, or permits issued by, other governmental agencies during the month;
8. a projection of project compliance activities scheduled during the next two months. The project owner shall notify the CPM as soon as any changes

are made to the project construction schedule that would affect compliance with conditions of certification;

9. a listing of the month's additions to the on-site compliance file;
10. any requests, with justification, to dispose of items that are required to be maintained in the project owner's compliance file; and
11. a listing of complaints, notices of violation, official warnings, and citations received during the month, a description of the resolutions of any resolved complaints, and the status of any unresolved complaints.

COM-7, Annual Compliance Report

After construction is complete, the project owner shall submit Annual Compliance Reports instead of Monthly Compliance Reports. The reports are for each year of commercial operation and are due to the CPM each year at a date agreed to by the CPM. Annual Compliance Reports shall be submitted over the life of the project unless otherwise specified by the CPM. Each Annual Compliance Report shall identify the reporting period and shall contain the following:

1. 11an updated compliance matrix which shows the status of all conditions of certification (fully satisfied and/or closed conditions do not need to be included in the matrix after they have been reported as closed);
2. a summary of the current project operating status and an explanation of any significant changes to facility operations during the year;
3 documents required by specific conditions to be submitted along with the Annual Compliance Report. Each of these items must be identified in the transmittal letter, and should be submitted as attachments to the Annual Compliance Report;
4 a cumulative listing of all post-certification changes approved by the Energy Commission or cleared by the CPM;
5 an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided;
6 a listing of filings made to, or permits issued by, other governmental agencies during the year;
7 a projection of project compliance activities scheduled during the next year;
8 a listing of the year's additions to the on-site compliance file;
9 an evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions necessary for bringing the plan up to date [see General Conditions for Facility Closure addressed later in this section]; and
10 a listing of complaints, notices of violation, official warnings, and citations received during the year, a description of the resolution of any resolved complaints, and the status of any unresolved complaints.

General Conditions

COM-8, Construction and Operation Security Plan

At least 14 days prior to commencing construction, a site-specific Security Plan for the construction phase shall be submitted to the CPM for approval. At least 30 days prior to the initial receipt of hazardous materials on-site, a site-specific Security Plan for the operational phase shall be submitted to the CPM for review and approval.

Construction Security Plan

The Construction Security Plan shall include the following:

1. site fencing enclosing the construction area;
2. use of security guards;
3. check-in procedure or tag system for construction personnel and visitors;
4. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; and
5. evacuation procedures.

Operation Security Plan

1. The Operations Security Plan shall include the following:
2. permanent site fencing and security gate;
3. evacuation procedures;
4. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency;
5. fire alarm monitoring system;
6. site personnel background checks, including employee and routine on-site contractors [Site personnel background checks are limited to ascertaining that the employee's claims of identity and employment history are accurate. All site personnel background checks shall be consistent with state and federal law regarding security and privacy.];
7. site access for vendors; and
8. requirements for Hazardous Materials vendors to prepare and implement security plans as per 49 CFR 172.800 and to ensure that all hazardous materials drivers are in compliance with personnel background security checks as per 49 CFR Part 1572, Subparts A and B.

In addition, the Security Plan shall include one or more of the following in order to ensure adequate perimeter security:

1. security guards;
2. security alarm for critical structures;
3. perimeter breach detectors and on-site motion detectors; and
4. video or still camera monitoring system.

The Project Owner shall fully implement the security plans and obtain CPM approval of any substantive modifications to the Security Plan. The CPM may authorize modifications to these measures, or may recommend additional measures depending on circumstances unique to the facility, and in response to industry-related security concerns.

COM-9, Confidential Information

Any information that the project owner deems confidential shall be submitted to the Energy Commission's Docket with an application for confidentiality pursuant to Title 20, California Code of Regulations, section 2505(a). Any information, that is determined to be confidential shall be kept confidential as provided for in Title 20, California Code of Regulations, section 2501 et. seq.

COM-10, Department of Fish and Game Filing Fee

Pursuant to the provisions of Fish and Game Code Section 711.4, the project owner shall pay a filing fee in the amount of $850. The payment instrument shall be provided to the Energy Commission's Project Manager (PM), not the CPM, at the time of project certification and shall be made payable to the California Department of Fish and Game. The PM will submit the payment to the Office of Planning and Research at the time of filing of the notice of decision.

COM-11, Reporting of Complaints, Notices, and Citations

Prior to the start of construction, the project owner must send a letter to property owners living within one mile of the project notifying them of a telephone number to contact project representatives with questions, complaints or concerns. If the telephone is not staffed 24 hours per day, it shall include automatic answering with date and time stamp recording. All recorded inquiries shall be responded to within 24 hours. The telephone number shall be posted at the project site and made easily visible to passersby during construction and operation. The telephone number shall be provided to the CPM who will post it on the Energy Commission's web page at:

http://www.energy.ca.gov/sitingcases/power_plants_contacts.html
Any changes to the telephone number shall be submitted immediately to the CPM who will update the web page.

In addition to the monthly and annual compliance reporting requirements described above, the project owner shall report and provide copies of all complaint forms, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt, to the CPM. Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the **NOISE** conditions of certification. All other complaints shall be recorded on the complaint form (Attachment A).